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A Bottom Trawl Survey of Crab and Groundfish in the Kodiak Island, Alaska Peninsula, and Dutch Harbor Areas, June to September, 1990

by

Daniel Urban

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A BOTTOM TRAWL SURVEY OF CRAB AND GROUNDFISH
IN THE KODIAK ISLAND, ALASKA PENINSULA, AND DUTCH HARBOR AREAS,
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ABSTRACT

A trawl survey of the Kodiak Island, Alaska Peninsula and Eastern Aleutian waters was completed during June to September of 1990. A total of 423 stations were fished. Catch composition was determined and crab and commercial groundfish were quantified. Red king crab *Paralithodes camtschaticus* stocks were found to be in a severely depressed state throughout the region. Populations of Tanner crab *Chionoecetes bairdi* in the Kodiak and Dutch Harbor Districts were found to be sufficient to support a modest fishery. The South Peninsula and Chignik Districts remained below harvest thresholds. Tanner crab stocks were surveyed for bitter crab syndrome: it was found to be widespread at a 2-3% prevalence with some locally higher infection rates. The highest prevalence was 18% in Alitak Bay.

KEY WORDS: crab, groundfish, *Paralithodes*, *Chionoecetes*, trawl survey, Kodiak, Alaska Peninsula, Chignik, Eastern Aleutians, bitter crab syndrome

INTRODUCTION

Bottom trawl surveys were conducted by the Alaska Department of Fish and Game (ADF&G) in 1990 which focused on inshore waters around Kodiak Island, along the Alaska Peninsula from Cape Douglas to Morzhovoi Bay, and around the eastern Aleutian islands of Akutan, Unalaska, and Umnak. As defined by Commercial shellfish regulations (ADF&G 1990), this includes the Kodiak, Alaska Peninsula, and Dutch Harbor king crab management areas and the Kodiak, Chignik, South Peninsula and Eastern Aleutian districts of the Westward Tanner Crab Area.

The first trawl survey in the region was conducted in the north Shelikof Strait in 1980. Early surveys targeted Kodiak Island waters, the Chignik Management District, and Pavlof Bay (Colgate 1983, 1984). Because the trawl net allows faster surveying and also captures smaller age classes of crab, it has gradually replaced the crab pot as the preferred gear for crab stock assessment (Jackson 1990). The last pot survey was conducted in 1988. The 1990 survey was the first to cover the Eastern Aleutians District.

The primary objective of the survey was to assess Tanner crab *Chionoecetes bairdi* and red king crab *Paralithodes camtschaticus* populations. A secondary objective was to document the prevalence of bitter crab syndrome in the Tanner crab stocks and to examine the incidental catch of groundfish. Specific objectives for the groundfish portion of the survey were to (1) determine species composition of the catch by haul and area, and (2) obtain length frequency distributions for commercially important groundfish by area.

METHODS

An explanation of special technical terms and abbreviations used in this report is presented in Appendix A.

Trawl Description and Procedures

The 27.4-m ADF&G research vessel *Resolution* made 423 tows between June 14 and September 17, 1990 in areas of known king and Tanner crab habitat. One tow was made at each station.

A 400-mesh eastern otter trawl net was used. This net had a 21.3-m (70-ft) long headrope with 18 floats that were 3.1 cm (8 in) in diameter. The footrope was 29.0 m (95 ft) long and lacked roller gear or tickler chain. The footrope was weighted with a 1-cm (3/8-in) chain attached every 25.4 cm (10 in) to ensure that the footrope tended bottom. The two dandylines were 45.7 m (25 fathoms) long, and each consisted of an 18.3-m (10-fathom) section of 1.5-cm (5/8-in) cable and a pair of 27.4-m (15-fathom) sections of 1.3-cm (1/2-in) cable, one attached to the top and the other to the bottom of each net wing. The Astoria "V" type doors weighed 340 kg (750 lb) each and measured 1.5 m x 2.1 m (5 ft x 7 ft). The net was constructed with 10.2-cm (4-in) stretch mesh at the mouth, 8.9-cm (3.5-in) stretch mesh in the body, and

the cod end consisted of a 3.2-cm (1.25-in) stretch mesh liner. The net was designed to sweep a 12.2-m (40-ft) path.

The offshore survey areas were divided into stations approximately 9.2 km square and each inshore or bay area was divided into stations 4.6 km square. Considerable variation occurred in the size of some offshore and most bay stations due to land boundaries. The trawl net was towed on the bottom at a speed of 2 knots for 1.85 km at each station. This distance, the equivalent of one nautical mile, captured a suitable sample weight in most areas. The length of the tow was determined from loran readings with corrections estimated by the skipper for tows that were not straight. Irregular bottom type occasionally caused haul lengths to differ from 1.85 km. Catches from these tows were standardized to 1.85 km. Tow distances and related information are recorded in Appendix C. Trawl placement within stations was determined by bottom contours and the location of trawlable bottom. All tows were made during daylight hours.

Catches were brought aboard, weighed and sorted by species. Total weight of the catch was determined by weighing the cod end of the trawl using an electronic crane scale accurate to the nearest 5 kg. Species composition by weight was determined for each haul. Crabs were sorted by sex. Crabs and important commercial fish species were measured to provide a size frequency distribution for each species. Reproductive success of crabs was measured by examining mature female Tanner and king crabs by size for the presence of egg clutches. When eggs were present, an estimate of egg clutch fullness, *percent ovigerity*, was made. Hemolymph smears from five randomly selected Tanner crab were prepared from each haul in a survey of the prevalence of bitter crab syndrome (BCS). Smears were collected from all crab judged to be exhibiting symptoms of the syndrome as a check of ADF&G personnel's ability to detect BCS. The smears were sent to the ADF&G Pathology Laboratory in Juneau for analysis.

King and Tanner Crab Population Estimation

Population estimates for king and Tanner crab were derived from the trawl survey data using the *area swept* technique. Assuming that the trawl swept a path 12.2 m wide, the area swept by the trawl in a 1-km tow was $1/82.0 \text{ km}^2$. Hence, the catch per tow was converted into a density estimate, number per kilometer squared, by multiplying the number caught per kilometer by 82.0. The calculated density was then multiplied by the area of the station being considered to give an estimate of that station's population size. Population estimates were computed for desired subsets of geographic or biological variables by summing the estimates from the individual stations. The population indices in Appendices E, F, I, J, K, N, and O and figures containing population estimates were calculated using this method.

Stratified Sampling Population Estimation

The reliability of population estimates for legal Tanner crab needed to be known. As a measure of precision, the coefficient of variation (CV) of the estimate was computed using a stratified sampling model. The region covered by the 1990 trawl survey was stratified into three levels:

- (1) Tanner crab management districts,
- (2) sections within districts, and
- (3) "substrata" within sections.

Tanner crab management districts were defined by the 1990 Commercial Shellfish Regulations (ADF&G 1990). In the Kodiak District the sections within management districts were also defined by the 1990 Commercial Shellfish Regulations. The sections in the other management districts were defined by the shellfish management staff. Chiniak, Morzhovoi, and Pavlof/Volcano Sections were also divided into substrata by identifying stations that have shown high densities of legal Tanner crabs in past trawl surveys. The intent of designating substrata in such cases was to increase the precision of the legal Tanner crab population estimates. The geographical subdivisions used and the stations included in these subdivisions are given in Appendix B.

This stratification of the survey area into districts, sections, and substrata allows for population estimates for predefined subdivisions of interest. The legal population size was estimated using the Δ -distribution mean estimator (Aitchison 1955; Pennington 1983) within the context of stratified sampling design (Cochran 1977).

RESULTS

Areas fished are depicted in Figure 1. Appendix C details the exact position recorded for each tow of the 1990 survey.

Kodiak Populations

Two hundred and seventeen tows were completed from June 14 to July 7 and August 27 to September 17 in the Kodiak Area; tow numbers were 1 to 157 and 364 to 423. The calculated area used in the Kodiak crab population estimates totaled 6,234.3 km². Appendices D.1-D.9 show the specific station locations and haul numbers in the sampled areas.

The 1990 survey captured a total of 25,318 male and 20,560 female Tanner crabs having mean widths of 94.1 mm and 75.6 mm, respectively (Figure 2). The 1990 mean widths showed a considerable increase over the 1989 mean widths of 82.5 mm for males and 65.5 mm for females. Tanner crabs were captured in 95% of all tows, their numbers ranging from 1 to 3,606 animals. The surveyed Kodiak District Tanner crab population for 1990 was estimated to be 77.2 million animals. This estimate compares to previous estimates of 81.0 million in 1989 (Jackson 1990) and 39.2 million crab in 1988 (Jackson et al, 1989; Table 1).

Population estimates for Tanner crab (Appendix E) were also derived for most of the commercial fishing sections described in the ADF&G commercial shellfish regulations. Also shown is the catch of each size-sex category per 1.85 km towed by station.

Using the stratified sampling method, the population of legal Tanner crab in the Kodiak District was estimated to be 2,700,000. The largest population of legal size Tanner crab was found in the Eastside section where the estimate of 848,000 crab was 31% of the total legal crab in the Kodiak District (Table 2).

The 1990/91 commercial Tanner crab season was scheduled to open January 15, 1991. A 40% exploitation rate of the legal population resulted in a projected harvest guideline of 2.6 million pounds. The average weight of crabs from the previous commercial harvest was used to convert numbers of crabs into poundage. The 1989/1990 harvest average weight was 2.4 pounds per crab.

The estimated population of male Tanner crab in the Kodiak fishing sections is shown in Figures 3-8. Also shown is the shell condition of the estimated population of Tanner crabs in each section. Each crab measured was weighted by a factor of the tow length, net width, and station size. New-shell crabs accounted for 88% of the total male Tanner crabs captured on the Kodiak survey, but a lower percentage (74%) was exhibited in prerecruits I and II (Table 3). The higher incidence of old-shelled animals in prerecruit I category (>130 mm) was prevalent throughout the Kodiak District with greater proportions in the Southwest and North Mainland Sections (Figures 6 and 8).

Egg clutches of 11,142 mature female Tanner crabs from the Kodiak area were examined; 85% exhibited clutch fullness (percent ovigerity) of at least 70% (Figure 9).

The Kodiak red king crab population continues to remain at historically low population levels, and the fishing seasons for this species have remained closed since 1983. One hundred and ninety-one male and 101 female king crab were captured having mean lengths of 137.5 mm for males and 118.6 mm for females (Figure 10). The majority were mature. King crab were captured in 13% of the tows. Catches ranged from 1 animal per tow to a high of 44 king crab in two separate tows, one in Chiniak Bay and one in East Uganik Passage. Legal size crab accounted for 55% of total male king crab captured (Table 3).

The Kodiak red king crab population was estimated to be 0.16 million animals. Population estimates were derived for the main commercial fishing districts by size and sex categories (Appendix F). Fecundity, as measured by clutch fullness, is shown in Figure 11. Sixty-eight percent of the adult crab sampled had an ovigerity of 80% or greater.

The average haul weight of fish and invertebrates from all Kodiak hauls was 1,160 kg per 1.85 km of tow. Species composition from each Kodiak area haul is presented in Appendix C. Arrowtooth flounder *Atheresthes stomias* was the most abundant species encountered (28.9%), followed by flathead sole *Hippoglossoides elassodon* (19.7%) and pollock *Theragra chalcogramma* (12.9%). The rank and relative

abundance by weight of the 20 most common species encountered in the Kodiak survey are listed in Table 4.

Catches from areas around Kodiak Island were averaged (Table 5). Stations were combined by bay or similar geographic location in the offshore areas. Offshore Southwest Kodiak Island produced the greatest average catch where 11 hauls averaged 2,377 kg/1.85 km.

Length measurements of more than 33,000 fish from 30 species were taken during the Kodiak Island bottom trawl survey. Length frequency data has been combined by bays within the Kodiak area (Appendix G).

Alaska Peninsula Populations

The area south of the Alaska Peninsula was surveyed from August 2 through August 25 and 160 hauls were completed. There were 123 hauls in the South Peninsula District composing tow numbers 204 to 326. Thirty-seven hauls were completed in the Chignik District composing tow numbers 327 to 363. The calculated area used in the crab population estimates were 1793.0 and 677.6 km² in the South Peninsula and Chignik Districts, respectively. Appendices H.1-H.8 show the specific locations, haul numbers and trawl stations in the sampled areas.

The 1990 Alaska Peninsula bottom trawl survey captured 28,526 Tanner crabs, of which 21,666 were from the South Peninsula District and 6,860 were from the Chignik District.

New-shelled animals accounted for 93% of the male Tanner crab captured. More than half of those males were < 70 mm in carapace width (Table 6).

The mean width of Tanner crab in the South Peninsula District was 71.1 mm for males and 68.1 mm for females (Figure 12). The number of Tanner crabs captured in a single tow ranged from 1 to 2,353 animals. The Tanner crab population in the surveyed portion of the South Peninsula District (combination of Sanak Islands, Morzhovoi Bay, Cold Bay, Pavlof Bay, Beaver Bay, Unga Straits, and Stepovak Bay) was estimated to be 22.4 million animals. Population estimates were derived for each size-sex category of crabs by fishing area (Appendix I).

A comparison of the number of crabs estimated in the 1990 survey of the South Peninsula District with those estimated in the 1989 survey showed a decrease in juvenile crab and adult female crab (Table 7). Prerecruits, which would reach a legal size in 1991, declined by approximately 30% in 1990.

The number of legal-size Tanner crab showed a 51% increase from the 1989 survey to 420,000 crab. The legal Tanner crab population estimates for each stratum in the South Peninsula District are given in Table 8. The 1989 survey sampled crab populations which had been subject to a fishery in January of that year.

In 1990, the Tanner crab fishery was closed, so crabs recruiting to legal size would not have been subject to fishing pressure. This may account for the increased numbers of legal crab. Despite this increase, populations of legal Tanner crab remain at depressed levels.

Size frequency and shell condition of male Tanner crab estimated in 1990 by fishing area are shown in Figures 13-19. The commercial Tanner crab fishery did not open in the South Peninsula District during the 90/91 season because of low legal crab abundance and high anticipated effort.

Mean width of Tanner crabs in the Chignik District was 68.8 mm for males and 48.9 mm for females (Figure 20). Size frequency and shell condition of male Tanner crabs by fishing area are shown in Figures 21-24. The estimated number of Tanner crabs in the Chignik District was 8.8 million (Appendix J).

The total legal Tanner crab population was estimated to be 470,000. Population estimates of legal Tanner crabs for each Chignik District Section are shown in Table 9. Seventy-two percent of these crabs were recruit animals. The Chignik District was not open to Tanner crab fishing during the 1990/91 commercial season because of low abundance of legal crab in relation to anticipated effort levels. Full egg clutches were found in 57% of 2,556 adult female Tanner crabs captured in the South Peninsula District and 52% of 750 of adult females from the Chignik District (Figures 25, 26).

The red king crab population in the Alaska Peninsula remains at historic low levels. As has been the case in Kodiak, the commercial fishery has not opened since the 82/83 season. A total of 20 male and 21 female red king crabs were captured in the Alaska Peninsula trawl survey having mean lengths of 102.0 mm for males and 84.7 mm for females (Figure 27). King crab were captured in 11% of the tows, 32% of the total being caught in a single haul in Morzhovoi Bay. Legal-size male king crab were 25% of the total males captured (Table 6). The Alaska Peninsula red king crab population was estimated to be 42 thousand crabs (Appendix K).

The average haul weight of fish and invertebrates from all Alaska Peninsula hauls was 609 kg/km towed. Species composition of each Alaska Peninsula haul is presented in Appendix C. Yellowfin sole *Pleuronectes aspera* was the most abundant species encountered (25.1%), followed by walleye pollock *Theragra chalcogramma* (16.4%) and flathead sole *Hippoglossoides elassodon* (15.7%; Table 10).

Stations were combined from similar locations as noted on the fishing log (Appendix C). A comparison of the average catch by fishing area shows the highest abundance in the Cold Bay/Belkofski area (Table 5). Twenty tows averaged 1,655 kg/1.85 km, and over 40% of that was yellowfin sole.

Length frequencies were derived from 24,700 measurements of 20 groundfish species found in the Alaska Peninsula area (Appendix L).

Eastern Aleutian Populations

Forty-six tows were completed in the Eastern Aleutian district between July 21 and August 1. Tow numbers were 158 to 203. The calculated area used in the crab population estimates totaled 531.7 km². Appendix M shows the specific locations and haul numbers of trawl stations in the sampled areas. The surveyed portions of the district included Akutan Bay, Beaver Inlet, Unalaska/Kalekta Bay, Makushin Bay, Usof Bay, Akun Bay, Pumicestone Bay, Cape Idak, and Inanudak Bay.

The bottom trawl survey captured 11,167 Tanner crabs, of which 5,854 were males and 5,313 were females. Mean widths were 71.1 mm for males and 65.0 mm for females (Figure 28). Tanner crabs were captured in 96% of the tows with the number of crabs captured ranging from 1 to 1,608 animals. Ninety-five percent of the male Tanner crabs captured were new-shell crab (Table 11; Figure 29). Of the 1,700 adult female Tanner crabs examined, 27% had full egg clutches (Figure 30). The estimated number of Tanner crabs in the Eastern Aleutians district was 10.1 million (Appendix N).

The total legal Tanner crab population was estimated to be 70,000 crabs or only 3% of the total population. Recruits made up 64% of the legal Tanner crab captured. Makushin Bay was estimated to have the largest legal Tanner crab population: 28,000 crabs (Table 12).

The red king crab population in the Dutch Harbor area remains at historically low levels, no commercial fishery having been permitted since the 82/83 season. The 1990 bottom trawl survey captured a total of 11 king crabs: 10 legal males and a mature female. The female measured 149 mm, and the males averaged 164.1 mm. The total king crab population of the Dutch Harbor area was estimated to be 9,100 animals. The Unalaska Bay/Kalekta Bay stratum made up 58% of that population (Appendix O).

The average haul weight of fish and invertebrates from all Eastern Aleutian hauls was 490 kg/km towed. Species composition of each Eastern Aleutian haul is presented in Appendix C. Sea cucumber was the most abundant species encountered (23.1%), followed by walleye pollock (17.8%) and arrowtooth flounder (16.2%; Table 13). Ninety-eight percent of the sea cucumbers were captured in one haul in Beaver Inlet. These were the *sea football* variety, *Cucumaria fallax*, which are not commercially marketable at this time. Width frequencies were derived from measurements of over 8,000 groundfish in the Eastern Aleutian District (Appendix P).

Prevalence of Bitter Crab Syndrome

Preliminary results of the bitter crab syndrome testing showed that it to be widespread but generally at a low prevalence. Approximately 2-5% of randomly sampled Tanner crabs throughout the surveyed area were infected with the dinoflagellate. Alitak Bay had a much higher prevalence at 18.5%. The 1991 bottom trawl survey will resample this bay in an effort to monitor the disease. Pearson and Meyers (1992) more completely detail the results of the bitter crab testing.

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Table 1. Tanner crab population estimates from trawl surveys in the Kodiak area, 1987-1990.

Area and Year	Females			No. Sublegal Males by size (mm)				Recruits	Postrecruit		Total Legal	Total Male	Total Crab
	Juvenile	Adult	Total	<70	70-91	92-114	>114		<165 mm	>164 mm			
North East													
1987	461,089	1,135,422	1,596,511	352,860	248,415	326,506	493,916	101,484	197,865	33,038	332,387	1,754,082	3,350,594
1988	2,643,594	674,490	3,318,084	2,495,836	395,350	545,140	685,327	384,565	23,104	20,977	428,647	4,550,300	7,868,384
1989	5,481,792	5,654,266	11,136,058	5,127,986	1,546,105	2,165,369	2,319,049	1,409,193	133,905	269,859	1,812,957	12,971,466	24,107,524
1990	1,812,656	3,140,834	4,953,490	1,446,757	1,482,180	1,142,711	1,024,535	510,407	93,031	101,879	705,317	5,801,498	10,754,989
East Side													
1987	5,476,413	3,930,451	9,406,862	5,750,053	609,468	514,257	1,202,144	149,925	299,091	89,925	538,941	8,614,863	18,021,728
1988	2,083,954	820,032	2,903,986	1,616,718	443,776	627,028	732,705	298,165	100,786	1,914	400,864	3,821,090	6,725,077
1989	2,393,419	3,821,312	6,214,731	2,029,181	1,567,590	1,640,007	1,285,700	799,441	270,769	29,333	1,099,543	7,622,201	13,836,752
1990	1,547,033	10,045,389	11,592,420	1,299,698	679,016	2,019,193	4,059,072	788,369	162,670	60,418	1,011,457	9,068,434	20,660,860
South East													
1987	2,379,119	894,205	3,273,324	2,044,847	413,335	337,537	875,142	480,004	88,816	2,841	571,660	4,242,522	7,515,845
1988	243,200	314,486	557,686	188,394	221,880	607,570	1,189,633	777,880	129,593	50,773	958,246	3,161,723	3,719,408
1989	922,092	424,847	1,346,939	694,841	140,444	246,215	564,215	175,593	70,553	9,739	255,885	1,901,600	3,248,539
1990	1,148,017	781,102	1,929,119	1,086,357	131,469	299,245	651,302	383,859	117,252	5,970	507,081	2,675,454	4,604,574
South West													
1987	2,368,774	590,671	2,959,445	1,990,338	45,752	727,616	1,799,111	638,664	107,127	44,416	790,207	5,353,024	8,312,469
1988	191,219	225,135	416,354	168,051	16,405	63,339	591,313	1,370,943	61,725	76,170	1,508,838	2,347,945	2,764,299
1989	2,716,302	220,553	2,936,855	2,510,149	202,807	189,372	443,446	281,673	118,617	85,688	485,978	3,831,752	6,768,607
1990	3,527,315	1,383,437	4,910,753	2,635,176	1,259,988	709,183	704,467	53,127	59,552	11,567	124,247	5,433,060	10,343,812
West Side													
1987	2,541,394	1,526,443	4,067,836	1,243,848	2,401,608	1,149,549	1,302,877	835,177	46,421	50,537	932,134	7,030,016	11,097,852
1988	3,232,321	1,125,086	4,357,407	2,903,179	160,149	477,223	606,182	243,134	45,969	21,869	310,973	4,457,707	8,815,114
1989	8,655,122	1,185,882	9,841,004	7,125,499	1,387,997	651,689	739,127	373,683	71,456	32,282	477,421	10,381,733	20,222,737
1990	1,539,037	4,037,828	5,576,865	725,246	1,325,090	807,624	874,879	209,757	98,770	42,662	351,190	4,084,028	9,660,893
North Mainland													
1987	668,509	2,267,682	2,936,190	622,331	926,344	2,693,481	2,761,800	498,657	101,469	39,646	639,772	7,643,728	10,579,918
1988	3,055,286	861,060	3,916,347	2,592,371	131,758	424,485	1,227,352	922,762	82,755	32,415	1,037,933	5,413,899	9,330,245
1989	4,557,775	1,263,559	5,821,334	4,670,560	251,950	289,575	1,150,687	417,410	105,261	165,459	688,130	7,050,902	12,872,236
1990	7,046,141	3,301,573	10,347,713	5,970,049	2,313,040	806,067	1,470,971	148,847	115,216	36,289	300,352	10,860,480	21,208,194
South Mainland													
1987	11,393	64,558	75,950	37,975	11,393	37,975	3,798	0	0	0	0	91,140	167,090
GRAND TOTAL													
1987	13,906,688	10,409,430	24,316,116	12,042,252	4,656,314	5,786,921	8,438,786	2,703,910	840,789	260,402	3,805,102	34,729,372	59,045,496
1988	11,449,574	4,020,290	15,469,864	9,964,549	1,369,319	2,744,783	5,028,512	3,997,449	443,932	204,119	4,645,500	23,752,662	39,222,528
1989	24,726,502	12,570,419	37,296,921	22,158,216	5,096,893	5,182,227	6,502,224	3,456,993	770,561	592,360	4,819,914	43,759,474	81,056,395
1990	16,620,199	22,690,162	39,310,360	13,163,283	7,190,782	5,784,022	8,785,225	2,094,366	646,492	258,785	2,999,643	37,922,952	77,233,320

Table 2. Estimates of legal Tanner crab population size from the 1990 Kodiak District trawl survey.

Stratum	Area (km ²)	No. of Tows	Population Estimate	Coefficient of Variation
NORTHEAST SECTION				
Inner Marmot	111.65	11	114,000	
Middle Marmot	211.82	6	51,000	
Outer Marmot	277.50	5	9,000	
Chiniak "Low"	83.53	6	1,000	
Chiniak "High"	13.87	2	332,000	
Chiniak Gully	358.90	7	0	
TOTAL NORTHEAST SECTION	1112.77	37	507,000	16.8%
EASTSIDE SECTION				
Ugak Bay	111.83	11	315,000	
Kiliuda Bay	108.60	10	308,000	
Horseshoe/Barnabas	772.19	18	225,000	
TOTAL EASTSIDE SECTION	992.62	39	848,000	42.7%
SOUTHEAST SECTION				
South Sitkalidak	149.20	13	350,000	
Offshore Twoheaded	319.50	7	91,000	
Horsehead	462.50	10	12,000	
Towers	185.00	3	11,000	
TOTAL SOUTHEAST SECTION	1116.20	33	464,000	32.98%
SOUTHWEST SECTION				
Compass Rose	1017.50	11	8,000	
Alitak Flats	224.59	14	4,000	
Alitak Bay	175.75	16	99,000	
TOTAL SOUTHWEST SECTION	1417.84	41	111,000	32.8%
WESTSIDE SECTION				
Uyak Bay	129.87	7	88,000	
Uganik Bay	118.40	11	133,000	
Kupreanof/Viekoda	123.02	10	157,000	
West Afognak	31.08	3	75,000	
TOTAL WESTSIDE SECTION	402.37	31	453,000	36.3%
NORTH MAINLAND SECTION				
Shelikof	1192.14	26	316,000	
GRAND TOTAL	6,234.32	135	2,700,000	16.6%

Table 3. Numbers of male king and Tanner crab by shell age and cohort captured during the Kodiak area crab trawl survey, 1990.

Cohort	Definition	Shell Condition			
		Soft shell	New shell	Old shell	Very old
<i>King Crab</i>					
Prerecruit IV	<95mm	1	34	0	0
Prerecruit III	95-112mm	0	7	0	0
Prerecruit II	113-130mm	0	22	0	0
Prerecruit I	>130mm and sublegal	0	19	3	0
Recruit	<164mm and legal newshell	0	26	0	0
Postrecruit	>163mm or legal and not newshell	0	45	31	3
<i>Tanner Crab</i>					
Prerecruit IV	<70mm	371	6,410	15	7
Prerecruit III	70-91mm	278	4,643	70	17
Prerecruit II	92-114mm	98	3,973	284	237
Prerecruit I	>114mm and sublegal	81	4,118	1,152	878
Recruit	<165mm and legal newshell	58	2,038	0	0
Postrecruit	>164mm or legal and not newshell	34	197	283	78

Table 4. Relative abundance by weight of the 20 most encountered species of groundfish and invertebrates captured from the bottom trawl survey of Kodiak Island, 1990.

Species Name	% of Catch by Weight
Arrowtooth flounder <i>Atheresthes stomias</i>	28.9
Flathead sole <i>Hippoglossoides elassodon</i>	19.7
Pollock <i>Theragra chalcogramma</i>	12.9
Tanner crab <i>Chionoecetes bairdi</i>	5.3
Yellowfin sole <i>Pleuronectes aspera</i>	4.9
Pacific cod <i>Gadus macrocephalus</i>	3.7
Skates (big & longnose) <i>Raja binoculata</i> & <i>Raja rhina</i>	3.0
Butter sole <i>Isopsetta isolepis</i>	2.8
Starfish (Subclass: Asteroidea)	2.7
Pacific halibut <i>Hippoglossus stenolepis</i>	2.6
Dover sole <i>Microstomus pacificus</i>	2.2
Rock sole <i>Lepidotetta bilineata</i>	2.2
Rex sole <i>Glyptocephalus zachirus</i>	1.4
Great sculpin <i>Myoxocephalus polyacanthocephalus</i>	1.2
Starry flounder <i>Platichthys stellatus</i>	0.9
Dungeness crab <i>Cancer magister</i>	0.8
Alaska plaice <i>Pleuronectes quadrituberculatus</i>	0.5
Hermit crab (Family: Paguridae)	0.4
Sea Anemone (Class: Anthozoa)	0.4
Giant Wrymouth <i>Delolepis gigantea</i>	0.4

Table 5. Average catch of groundfish and invertebrates (kg/1.85 km) towed by area from the bottom trawl survey of Kodiak Island, Alaska Peninsula, Chignik and Eastern Aleutians, June through September 1990.

Species	Survey Area				
	Shelikof (26 tows)	Marmot Offshore (5 tows)	Chiniak Offshore (7 tows)	Barnabas (23 tows)	Twoheaded (15 tows)
Pollock	24.4	365.6	90.7	72.5	73.4
Pacific Cod	32.4	13.8	18.6	16.8	18.3
Pacific Ocean Perch	0.0	0.0	0.0	0.0	0.0
Rougheye Rockfish	2.6	0.5	0.1	0.9	2.3
Thornyhead Rockfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.1	0.1	0.2	0.4	0.0
Sablefish	1.9	0.4	0.0	0.6	0.1
Herring	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.1
Sculpins	3.0	0.0	0.8	4.8	20.0
Other Roundfish	2.0	1.7	0.2	3.5	8.2
TOTAL ROUNDFISH	66.4	382.1	110.7	99.5	122.4
Arrowtooth Flounder	138.3	187.0	96.3	244.1	188.8
Flathead Sole	38.0	57.4	48.1	48.9	232.5
Rock Sole	1.2	0.6	9.9	9.9	9.4
Rex Sole	2.0	23.4	37.3	29.8	2.6
Dover sole	17.9	16.7	16.9	31.1	2.9
Pacific Halibut	15.0	6.7	9.7	14.5	12.7
Starry Flounder	2.1	0.0	0.0	0.0	2.4
Yellowfin Sole	0.0	0.0	0.0	0.4	37.7
Other Flatfish	6.0	0.0	138.4	2.8	29.7
TOTAL FLATFISH	220.4	291.7	356.4	381.4	518.6
Skates	20.2	16.1	22.2	14.3	3.9
Spiny Dogfish	0.7	0.1	0.0	0.2	0.1
Tanner Crab	20.2	1.7	0.4	24.6	32.0
Red King Crab	1.5	0.0	0.0	0.0	0.7
Dungeness Crab	1.5	0.0	0.0	0.0	0.1
Shrimp spp.	6.1	0.8	0.0	0.1	0.2
Scallop	5.2	0.1	1.1	0.3	3.3
Other Invertebrates	59.1	17.4	47.4	23.0	24.3
TOTAL INVERTEBRATES	93.7	20.0	49.0	48.0	60.6
Other	1.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/km)	402.3	710.1	538.4	543.4	705.6

-Continued-

Table 5. (page 2 of 8)

Species	Survey Area				
	Alitak Flats (14 tows)	Geese Islands (10 tows)	Sitkinak Island (3 tows)	Alitak Bay (16 tows)	Chiniak Bay (8 tows)
Pollock	66.1	64.1	31.1	105.3	54.8
Pacific Cod	7.5	19.3	42.7	23.0	20.0
Pacific Ocean Perch	0.0	0.0	0.0	0.0	0.0
Rougheye Rockfish	0.0	4.7	0.0	1.3	0.2
Thornyhead Rockfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.3	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.9	0.2
Herring	0.0	0.0	0.0	0.1	0.0
Salmon	0.0	0.0	0.0	0.0	0.0
Sculpins	8.7	1.7	0.3	13.2	28.7
Other Roundfish	6.0	1.4	0.7	14.0	2.5
TOTAL ROUNDFISH	88.3	91.5	74.8	157.7	106.4
Arrowtooth Flounder	88.6	120.6	370.5	23.3	115.6
Flathead Sole	84.2	50.3	47.6	97.8	218.3
Rock Sole	0.8	11.5	82.5	0.8	31.2
Rex Sole	0.3	2.2	96.3	0.1	0.2
Dover sole	0.0	3.6	39.8	2.2	0.0
Pacific Halibut	20.4	15.4	6.5	11.0	12.0
Starry Flounder	0.7	0.0	0.0	0.0	3.5
Yellowfin Sole	20.9	0.0	0.0	45.4	145.3
Other Flatfish	13.6	19.0	48.4	25.5	23.4
TOTAL FLATFISH	229.5	222.7	691.6	206.0	549.5
Skates	65.0	3.8	5.1	6.4	16.9
Spiny Dogfish	0.0	0.2	0.0	0.0	0.0
Tanner Crab	3.2	1.1	1.1	55.5	104.5
Red King Crab	0.0	0.0	0.0	8.8	8.4
Dungeness Crab	0.0	0.0	0.0	7.1	6.9
Shrimp spp.	0.0	0.4	0.1	0.8	0.1
Scallop	0.0	0.3	0.1	0.3	0.0
Other Invertebrates	11.8	10.5	5.6	11.1	46.9
TOTAL INVERTEBRATES	15.1	12.3	6.9	83.6	166.8
Other	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/km)	397.9	330.4	778.3	453.7	839.6

-Continued-

Table 5. (page 3 of 8)

Species	Survey Area				
	Kiliuda Bay (10 tows)	Kupreanof/Viekoda (11 tows)	Uganik Bay (11 tows)	Inner Marmot Bay (11 tows)	Malina/ Raspberry (3 tows)
Pollock	24.4	168.6	124.0	178.3	127.3
Pacific Cod	20.4	24.3	19.0	15.1	17.7
Pacific Ocean Perch	0.0	0.0	0.0	0.0	0.0
Rougheye Rockfish	0.6	0.7	0.1	0.4	0.0
Thornyhead Rockfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.1	0.4	0.0	0.0
Sablefish	0.3	0.1	0.3	1.5	0.8
Herring	0.0	0.0	0.1	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0
Sculpins	4.6	23.7	2.9	20.1	19.3
Other Roundfish	7.7	8.5	16.8	1.1	10.1
TOTAL ROUNDFISH	58.0	225.9	163.7	216.4	175.1
Arrowtooth Flounder	243.8	138.2	102.0	163.3	335.3
Flathead Sole	384.0	236.8	129.9	153.2	203.6
Rock Sole	14.1	64.3	13.1	13.2	6.7
Rex Sole	2.7	4.0	1.0	3.2	2.5
Dover sole	11.4	38.0	4.2	0.0	88.1
Pacific Halibut	11.8	27.5	11.5	16.6	32.6
Starry Flounder	32.4	0.0	8.5	16.5	11.1
Yellowfin Sole	12.9	128.1	40.2	95.0	0.0
Other Flatfish	17.5	6.7	15.0	6.4	2.3
TOTAL FLATFISH	730.6	643.6	325.4	467.4	682.2
Skates	30.8	13.6	2.4	14.0	58.5
Spiny Dogfish	0.0	0.0	0.0	0.1	0.0
Tanner Crab	36.7	40.0	70.1	42.3	77.7
Red King Crab	0.0	9.8	1.1	0.4	0.0
Dungeness Crab	0.1	23.0	27.5	2.4	0.5
Shrimp spp.	0.1	0.2	1.9	0.3	0.6
Scallop	0.0	0.3	0.6	0.1	0.1
Other Invertebrates	23.7	25.8	19.8	15.1	36.1
TOTAL INVERTEBRATES	60.7	99.3	121.0	60.6	114.9
Other	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/km)	880.1	982.3	612.5	758.5	1030.8

-Continued-

Table 5. (page 4 of 8)

Species	Survey Area				
	Ugak Bay (11 tows)	Southwest Offshore (11 tows)	Marmot/Izhut (6 tows)	Uyak Bay (7 tows)	Sanak Is. (5 tows)
Pollock	32.0	62.1	31.8	24.6	14.2
Pacific Cod	38.9	77.8	14.6	8.9	13.8
Pacific Ocean Perch	0.0	3.0	0.0	0.0	0.0
Rougheye Rockfish	0.6	2.5	1.2	0.2	0.1
Thornyhead Rockfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	9.2	0.0	0.1	0.0
Sablefish	0.0	6.7	0.2	0.2	0.0
Herring	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0
Sculpins	5.6	0.2	1.2	1.0	1.2
Other Roundfish	5.7	1.0	4.2	6.7	0.2
TOTAL ROUND FISH	82.7	162.4	53.3	41.7	29.5
Arrowtooth Flounder	106.9	957.1	114.0	87.9	30.6
Flathead Sole	180.8	48.1	81.3	149.4	24.8
Rock Sole	45.2	13.5	0.0	0.5	0.0
Rex Sole	1.6	20.4	0.7	1.5	1.1
Dover sole	0.0	40.5	3.9	1.3	0.7
Pacific Halibut	39.6	21.2	8.8	11.5	8.3
Starry Flounder	34.7	0.0	0.0	0.0	0.0
Yellowfin Sole	45.2	0.0	0.0	12.4	0.0
Other Flatfish	93.5	5.7	0.0	30.5	0.0
TOTAL FLATFISH	547.4	1106.5	208.6	295.1	65.5
Skates	37.9	9.2	13.0	22.3	1.2
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0
Tanner Crab	78.2	0.4	17.1	26.7	3.0
Red King Crab	0.7	0.5	0.0	0.8	0.0
Dungeness Crab	0.9	0.0	0.0	44.2	0.0
Shrimp spp.	0.3	0.1	1.9	0.4	0.0
Scallop	0.2	0.2	0.0	0.5	0.1
Other Invertebrates	55.1	4.3	7.3	28.7	11.9
TOTAL INVERTEBRATES	135.4	5.5	26.3	101.2	15.0
Other	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/km)	803.4	1283.7	301.2	460.3	111.2

-Continued-

Table 5. (page 5 of 8)

Species	Survey Area				
	Morzhovoi (24 tows)	Cold Bay/Belkofski (20 tows)	Pavlof/Volcano (41 tows)	Beaver/Balboa (16 tows)	Stepovak (9 tows)
Pollock	149.7	94.0	110.3	89.2	175.3
Pacific Cod	41.8	33.0	37.1	47.8	12.2
Pacific Ocean Perch	0.0	0.0	0.0	0.0	0.0
Rougheye Rockfish	0.0	0.0	0.0	0.0	0.9
Thornyhead Rockfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.4	0.4
Herring	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0
Sculpins	42.7	15.8	13.3	13.4	2.9
Other Roundfish	8.6	2.5	4.5	2.9	0.2
TOTAL ROUND FISH	242.9	145.3	165.2	153.7	192.0
Arrowtooth Flounder	74.4	6.5	43.5	61.2	116.5
Flathead Sole	95.8	117.5	120.8	70.7	99.7
Rock Sole	74.6	52.4	43.3	57.0	0.6
Rex Sole	0.5	0.2	0.0	0.3	0.2
Dover sole	0.0	0.0	0.0	0.0	0.0
Pacific Halibut	22.5	16.0	21.1	18.1	15.3
Starry Flounder	2.4	27.1	1.1	0.0	0.0
Yellowfin Sole	165.8	373.3	311.5	134.0	14.5
Other Flatfish	10.9	11.7	10.2	17.8	5.9
TOTAL FLATFISH	447.0	604.8	551.4	359.1	252.7
Skates	0.1	2.3	0.3	7.1	0.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0
Tanner Crab	24.8	35.6	20.1	8.4	2.1
Red King Crab	0.4	0.6	0.1	0.0	0.0
Dungeness Crab	1.1	1.7	1.3	9.9	0.0
Shrimp spp.	0.6	0.0	0.4	0.0	0.1
Scallop	1.7	6.2	1.1	2.1	1.4
Other Invertebrates	67.2	96.9	131.5	58.3	24.2
TOTAL INVERTEBRATES	95.9	141.1	154.5	78.8	27.9
Other	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/km)	785.8	893.5	871.4	598.7	473.3

-Continued-

Table 5. (page 6 of 8)

Species	Survey Area				
	West Nagai (5 tows)	Akutan/Akun Bays (8 tows)	Beaver Inlet (7 tows)	Unalaska/Kalekta (8 tows)	Makushin/ Pumicestone (10 tows)
Pollock	327.1	60.2	67.9	113.8	201.5
Pacific Cod	50.5	10.2	24.5	18.9	7.5
Pacific Ocean Perch	0.1	0.0	5.5	0.8	0.0
Rougheye Rkfish	0.0	0.0	0.6	0.0	0.2
Thornyhead Rkfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.2	0.3	0.1	0.0
Sablefish	0.0	0.0	2.1	1.6	1.4
Herring	0.0	14.1	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0
Sculpins	20.4	42.3	8.4	115.3	2.7
Other Roundfish	1.0	7.3	4.6	7.6	9.5
TOTAL ROUNDFISH	399.0	134.2	113.9	258.1	223.0
Arrowtooth Flounder	211.5	53.9	29.5	101.3	130.5
Flathead Sole	67.3	40.1	29.9	80.3	58.0
Rock Sole	14.4	61.3	7.0	91.5	0.3
Rex Sole	0.2	6.7	9.8	19.8	14.4
Dover Sole	1.3	0.4	4.9	0.0	1.0
Pacific Halibut	20.6	6.1	16.7	8.0	5.9
Starry Flounder	0.0	0.0	0.0	0.0	0.7
Yellowfin Sole	23.1	3.3	0.0	4.0	1.8
Other Flatfish	2.5	0.0	0.0	0.0	2.6
TOTAL FLATFISH	340.8	171.8	97.8	304.9	215.1
Skates	3.4	0.0	5.6	5.1	2.7
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0
Tanner Crab	2.3	43.9	25.6	16.2	12.1
Red King Crab	0.0	0.0	0.0	2.3	0.4
Dungeness	0.0	6.7	0.1	0.0	0.0
Shrimp spp.	0.1	0.0	1.8	0.1	0.4
Scallop	8.4	6.6	5.2	0.2	0.0
Other Invertebrates	49.6	69.8	910.9	25.4	5.5
TOTAL INVERTEBRATES	60.5	127.1	943.7	44.1	18.4
Other	0.0	0.0	0.0	0.1	0.0
TOTAL CATCH (kg/km)	803.7	433.2	1160.9	612.3	459.2

-Continued-

Table 5. (page 7 of 8)

Species	Survey Area				
	Usof Bay (5 tows)	Cape Idak (3 tows)	Inanudak Bay (4 tows)	Ivanof Bay (7 tows)	Mitrofania (6 tows)
Pollock	70.6	0.1	0.0	76.8	98.5
Pacific Cod	31.8	26.0	1.1	7.2	30.0
Pacific Ocean Perch	0.0	0.1	0.0	0.0	0.0
Rougheye Rockfish	0.3	0.0	0.0	0.6	0.7
Thornyhead Rockfish	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.2
Herring	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0
Sculpins	4.3	6.7	1.2	10.3	2.2
Other Roundfish	1.6	0.2	5.5	0.8	2.3
TOTAL ROUND FISH	108.6	33.1	7.7	95.6	133.9
Arrowtooth Flounder	157.3	83.2	21.5	94.9	72.0
Flathead Sole	23.6	6.2	3.8	151.6	127.8
Rock Sole	29.7	86.9	21.3	3.5	7.3
Rex Sole	4.6	4.4	1.1	0.2	0.4
Dover sole	1.4	0.0	0.0	0.0	1.2
Pacific Halibut	5.3	8.6	35.5	8.6	32.6
Starry Flounder	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	1.5	0.0	0.0	107.4	5.6
Other Flatfish	4.0	0.0	0.5	5.3	1.1
TOTAL FLATFISH	227.4	189.3	83.8	371.5	248.0
Skates	8.1	1.0	13.8	22.4	7.2
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0
Tanner Crab	9.6	1.3	0.4	17.8	16.2
Red King Crab	0.4	0.0	0.0	0.2	0.1
Dungeness Crab	0.0	0.0	0.0	1.8	0.0
Shrimp spp.	0.0	0.0	0.0	0.1	0.5
Scallop	0.8	1.7	4.6	11.0	0.5
Other Invertebrates	21.4	22.1	21.1	42.4	26.4
TOTAL INVERTEBRATES	32.2	25.1	26.1	73.4	43.8
Other	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/km)	376.4	248.6	131.5	562.9	432.9

-Continued-

Table 5. (page 8 of 8)

Species	Survey Area	
	Chignik Bay (17 tows)	Kujulik Bay (7 tows)
Pollock	111.2	83.0
Pacific cod	20.0	6.6
Pacific Ocean Perch	0.0	0.0
Rougheye Rockfish	1.0	0.0
Thornyhead Rockfish	0.0	0.0
Other Rockfish	0.0	0.0
Sablefish	0.1	0.3
Herring	0.0	0.0
Salmon	0.0	0.0
Sculpins	7.7	5.5
Other Roundfish	0.7	2.1
TOTAL ROUND FISH	140.6	97.4
Arrowtooth Flounder	125.4	121.2
Flathead Sole	148.5	155.2
Rock Sole	5.4	15.5
Rex Sole	0.3	0.0
Dover sole	2.3	0.4
Pacific Halibut	10.0	20.7
Starry Flounder	0.0	7.3
Yellowfin Sole	14.8	28.3
Other Flatfish	1.4	2.9
TOTAL FLATFISH	308.0	351.7
Skates	18.1	55.2
Spiny Dogfish	0.2	0.0
Tanner Crab	28.3	3.9
Red King Crab	0.0	0.0
Dungeness Crab	80.3	0.2
Shrimp spp.	1.2	0.6
Scallop	0.5	7.7
Other Invertebrates	13.4	42.5
TOTAL INVERTEBRATES	123.7	54.8
Other	0.0	0.0
TOTAL CATCH (kg/km)	590.6	559.1

Table 6. Numbers of male king and Tanner crab by shell age and cohort captured during the Alaska Peninsula trawl survey 1990.

Cohort	Definition	Shell Condition			
		Soft shell	New shell	Old shell	Very old
<i>King Crab</i>					
Prerecruit IV	<79mm	0	5	0	0
Prerecruit III	79-95mm	0	6	0	0
Prerecruit II	96-115mm	0	2	0	0
Prerecruit I	>116mm and sublegal	0	3	0	0
Recruit	<152mm and legal newshell	0	1	0	0
Postrecruit	>151mm or legal and not newshell	0	0	2	1
<i>Tanner Crab</i>					
Prerecruit IV	<70mm	161	7,473	4	1
Prerecruit III	70-91mm	9	2,059	27	6
Prerecruit II	92-114mm	1	1,767	102	65
Prerecruit I	>114mm and sublegal	4	1,203	199	291
Recruit	<165mm and legal newshell	0	459	0	0
Postrecruit	>164mm or legal and not newshell	0	10	172	167

Table 7. Tanner Crab population estimates from trawl surveys in the Alaska Peninsula area, 1988-1990.

Area and Year	Juvenile	Females			No. Sublegal Males by size (mm)				Recruits	Postrecruit		Total Legal	Total Male	Total Crab
		Adult	Total	<70	70-91	92-114	>114	<165 mm		>164 mm				
South Peninsula District														
Sanak														
1988	1,007,287	116,393	1,123,680	1,087,034	23,924	31,519	64,368	6,836	0	0	0	6,836	1,213,681	2,337,361
1990	544,525	102,533	647,058	412,210	80,760	52,532	22,785	0	0	0	0	0	568,287	1,215,345
Ikatan/Morzhovoi														
1988	473,143	393,460	866,603	256,652	287,299	245,461	221,888	96,780	30,848	17,019	144,647	1,155,947	2,022,550	
1989	3,840,620	1,173,058	5,013,678	3,214,760	1,373,096	440,767	133,655	42,427	4,949	0	47,376	5,209,653	10,223,332	
1990	2,137,939	1,047,225	3,185,164	1,503,423	663,670	551,967	197,960	25,633	25,542	1,489	52,664	2,969,683	6,154,847	
Cold Bay/Belkofski														
1988	263,424	311,506	574,930	133,813	222,565	234,339	220,235	88,143	32,649	8,520	129,312	940,264	1,515,195	
1989	465,622	55,256	520,877	408,728	54,811	29,720	16,589	3,881	488	0	4,369	514,217	1,035,094	
1990	1,819,773	553,714	2,373,488	1,536,289	526,568	276,381	224,763	88,021	51,348	4,548	143,918	2,707,919	5,081,407	
Pavlof/Volcano														
1988	438,378	879,351	1,317,728	351,825	213,743	527,769	473,115	211,734	88,807	79,839	378,380	1,944,832	3,262,561	
1989	1,193,787	1,898,744	3,092,532	752,840	448,297	374,030	447,775	121,787	80,943	17,669	220,399	2,243,341	5,335,871	
1990	1,138,250	2,110,361	3,248,611	823,545	574,445	631,345	345,196	62,129	125,646	18,957	206,732	2,581,264	5,829,876	
Beaver/Balboa/Unga Strait														
1988	123,769	76,533	200,302	106,816	66,274	50,497	22,020	5,399	10,364	0	15,763	261,370	461,672	
1989	129,353	247,345	376,698	141,019	56,566	48,228	30,418	0	6,059	0	6,059	282,291	658,989	
1990	373,873	479,216	853,088	384,768	40,079	155,649	89,422	16,441	6,615	0	23,057	692,974	1,546,062	
West Nagai														
1988	263,853	202,990	466,843	307,542	136,756	71,670	23,766	2,101	5,383	0	7,484	547,219	1,014,062	
1990	223,997	36,745	260,741	228,844	17,172	17,328	5,913	0	908	0	908	270,166	530,907	
Stepovak														
1988	369,775	129,844	499,619	327,572	19,700	18,217	4,025	0	0	0	0	369,515	869,133	
1990	891,103	138,654	1,029,758	992,870	7,256	28,929	19,636	8,266	6,158	0	14,424	1,063,116	2,092,874	
South Peninsula Totals														
1988	1,298,714	1,660,850	2,959,563	849,106	789,881	1,058,066	937,258	402,056	162,668	105,378	668,108	4,302,413	7,261,978	
1989	7,270,297	3,823,630	11,093,927	6,239,495	2,113,150	1,014,151	720,596	177,032	97,822	17,669	292,523	10,379,917	21,473,842	
1990	7,129,460	4,468,448	11,597,908	5,881,949	1,909,950	1,714,131	905,675	200,490	216,217	24,994	441,703	10,853,409	22,451,318	
Chignik District														
Ivanof														
1989	502,222	266,214	768,436	451,363	139,929	782,548	739,638	336,765	12,413	12,413	361,592	2,475,069	3,243,506	
1990	883,810	32,971	916,782	1,040,228	14,699	108,905	250,741	108,961	0	0	108,961	1,523,534	2,440,316	

-Continued-

Table 7. (page 2 of 2)

Area and Year	Juvenile	Females			No. Sublegal Males by size (mm)				Recruits	Postrecruit		Total Legal	Total Male	Total Crab
		Adult	Total	<70	70-91	92-114	>114	<165 mm		>164 mm				
Mitrofania														
1989	193,422	510,311	703,733	201,538	155,170	637,889	315,908	42,526	17,719	21,263	81,508	1,392,013	2,095,746	
1990	280,518	49,611	330,129	226,831	147,864	178,760	224,330	81,523	22,790	6,582	110,895	888,680	1,218,809	
Chignik														
1989	672,315	450,163	1,122,479	660,618	89,843	81,938	174,032	40,159	13,229	0	53,388	1,059,819	2,182,297	
1990	1,650,408	423,973	2,074,381	1,330,223	112,046	133,699	445,000	83,477	77,931	1,387	162,794	2,183,762	4,258,144	
Kujulik														
1989	83,550	13,089	96,639	78,148	722	9,150	11,386	931	0	0	931	100,388	197,026	
1990	394,255	122,744	517,000	380,715	2,193	10,486	10,206	2,525	0	0	2,525	406,125	923,125	
Chignik District Totals														
1989	1,451,509	1,239,777	2,691,287	1,391,667	385,664	1,511,525	1,240,964	420,381	43,361	33,676	497,419	5,027,289	7,718,575	
1990	3,208,991	629,299	3,838,292	2,977,997	276,802	431,850	930,277	276,486	100,721	6,582	385,175	5,002,101	8,840,394	

Table 8.

Estimates of legal Tanner crab from the 1990 South Peninsula trawl survey.

Stratum	Area (km ²)	No. of Tows	Population Estimate	Coefficient of Variation
Sanak Island	210.47	50	n/a	
Morzhovoi Bay	292.30	24	57,000	47.4%
Cold Bay/Belkofski	199.84	20	118,000	66.1%
Pavlof/Volcano	470.18	41	213,000	38.2%
Beaver/Balboa	213.76	16	20,000	48.3%
Stepovak Bay	255.36	9	9,000	53.7%
West Nagai Strait	149.65	5	2,000	100.0%
Total	1793.02	123	420,000	27.8%

Table 9. Estimates of legal Tanner crab from the 1990 Chignik District trawl survey.

Section	Area (km ²)	No. of Tows	Population Estimate	Coefficient of Variation
Ivanof Bay	232.21	7	215,000	100.1%
Mitrofania	191.14	6	124,000	51.9%
Chignik Bay	176.23	17	130,000	46.2%
Kujulik Bay	78.01	7	2,000	100.0%
Total	675.75	37	471,000	49.4%

Table 10. Relative abundance by weight of the 20 most encountered species of groundfish and invertebrates captured from the bottom trawl survey of South Peninsula and Chignik areas, 1990.

Species Name	% of Catch by Weight
Yellowfin Sole <i>Pleuronectes aspera</i>	25.0
Pollock <i>Theragra chalcogramma</i>	16.4
Flathead sole <i>Hippoglossoides elassodon</i>	15.8
Arrowtooth flounder <i>Atheresthes stomias</i>	9.9
Starfish (Subclass: Asteroidea)	5.5
Rock sole <i>Lepidopsetta bilineata</i>	5.3
Pacific cod <i>Gadus macrocephalus</i>	4.5
Tanner crab <i>Chionoecetes bairdi</i>)	2.7
Sea Anemone (Class: Anthozoa)	2.6
Pacific halibut <i>Hippoglossus stenolepis</i>	2.6
Great sculpin <i>Myoxocephalus polyacanthocephalus</i>	2.0
Dungeness crab <i>Cancer magister</i>	1.4
Alaska plaice <i>Pleuronectes quadrituberculatus</i>	1.0
Skates (big & longnose) <i>Raja binoculata</i> & <i>R. rhina</i>	1.0
Hermit crab (Family: Paguridae)	0.8
Snail (Class: Gastropoda)	0.6
Starry flounder <i>Platichthys stellatus</i>	0.6
Sea Urchin (Class: Echinoidea)	0.3
Eelpout (Family: Zoarcidae)	0.3
Yellow Irish Lord <i>Hemilepidotus jordani</i>	0.2

Table 11. Numbers of male king and Tanner crab by shell age and cohort captured during the Eastern Aleutian Trawl Survey, 1990.

Cohort	Definition	Shell Condition			
		Soft shell	New shell	Old shell	Very old
<i>King Crab</i>					
Prerecruit IV	<95mm	0	0	0	0
Prerecruit III	95-112mm	0	0	0	0
Prerecruit II	113-130mm	0	1	0	0
Prerecruit I	>130mm and sublegal	0	0	0	0
Recruit	<164mm and legal newshell	0	4	0	0
Postrecruit	>163mm or legal and not newshell	0	3	1	2
<i>Tanner Crab</i>					
Prerecruit IV	<70mm	40	2,987	2	0
Prerecruit III	70-91mm	5	1,567	12	3
Prerecruit II	92-114mm	2	724	80	5
Prerecruit I	>114mm and sublegal	0	196	114	50
Recruit	<165mm and legal newshell	0	43	0	0
Postrecruit	>164mm or legal and not newshell	0	2	15	7

Table 12. Estimates of legal Tanner crab population size from the 1990 Eastern Aleutian District trawl survey.

Section	Area	No. of Tows	Population Estimate	Coefficient of Variation
Akutan Bay	65.10	5	17,000	84.7%
Beaver Inlet	106.15	7	7,000	69.4%
Unalaska/Kalekta Bay	87.34	8	13,000	71.1%
Makushin Bay	99.22	8	28,000	60.0%
Usof Bay	47.62	5	782	100.0%
Akun Bay	37.06	3	0	0%
Pumicestone Bay	10.78	2	0	0%
Cape Idak	34.69	3	3,000	100%
Inanudak Bay	43.92	4	0	0%
Total	531.88	45	70,000	35.6%

Table 13. Relative abundance by weight of the 20 most encountered species of groundfish and invertebrates captured from the bottom trawl survey of Eastern Aleutian Islands, 1990.

Species Name	% of Catch by Weight
Sea Cucumber <i>Cucumaria</i> spp.)	23.1
Pollock <i>Theragra chalcogramma</i>	17.8
Arrowtooth flounder <i>Atheresthes stomias</i>	16.2
Flathead sole <i>Hippoglossoides elassodon</i>	7.9
Rock sole <i>Lepidotetta bilineata</i>	7.2
Great sculpin <i>Myoxocephalus polyacanthocephalus</i>	4.4
Tanner crab <i>Chionoecetes bairdi</i>	3.4
Pacific cod <i>Gadus macrocephalus</i>	3.0
Pacific halibut <i>Hippoglossus stenolepis</i>	2.0
Sponge (Phylum: Porifera)	2.0
Rex sole <i>Glyptocephalus zachirus</i>	1.9
Starfish Subclass: Asteroidea	1.9
Yellow Irish Lord <i>Hemilepidotus jordani</i>	1.3
Sea Urchin (Class: Echinoidea)	0.9
Skates (big & longnose) <i>Raja binoculata</i> & <i>Raja rhina</i>	0.8
Sea Anemone (Class: Anthozoa)	0.6
Herring <i>Clupea pallasii</i>	0.4
Snail (Class: Gastropoda)	0.4
Hermit crab (Family: Paguridae)	0.4
Yellowfin Sole <i>Pleuronectes aspera</i>	0.3

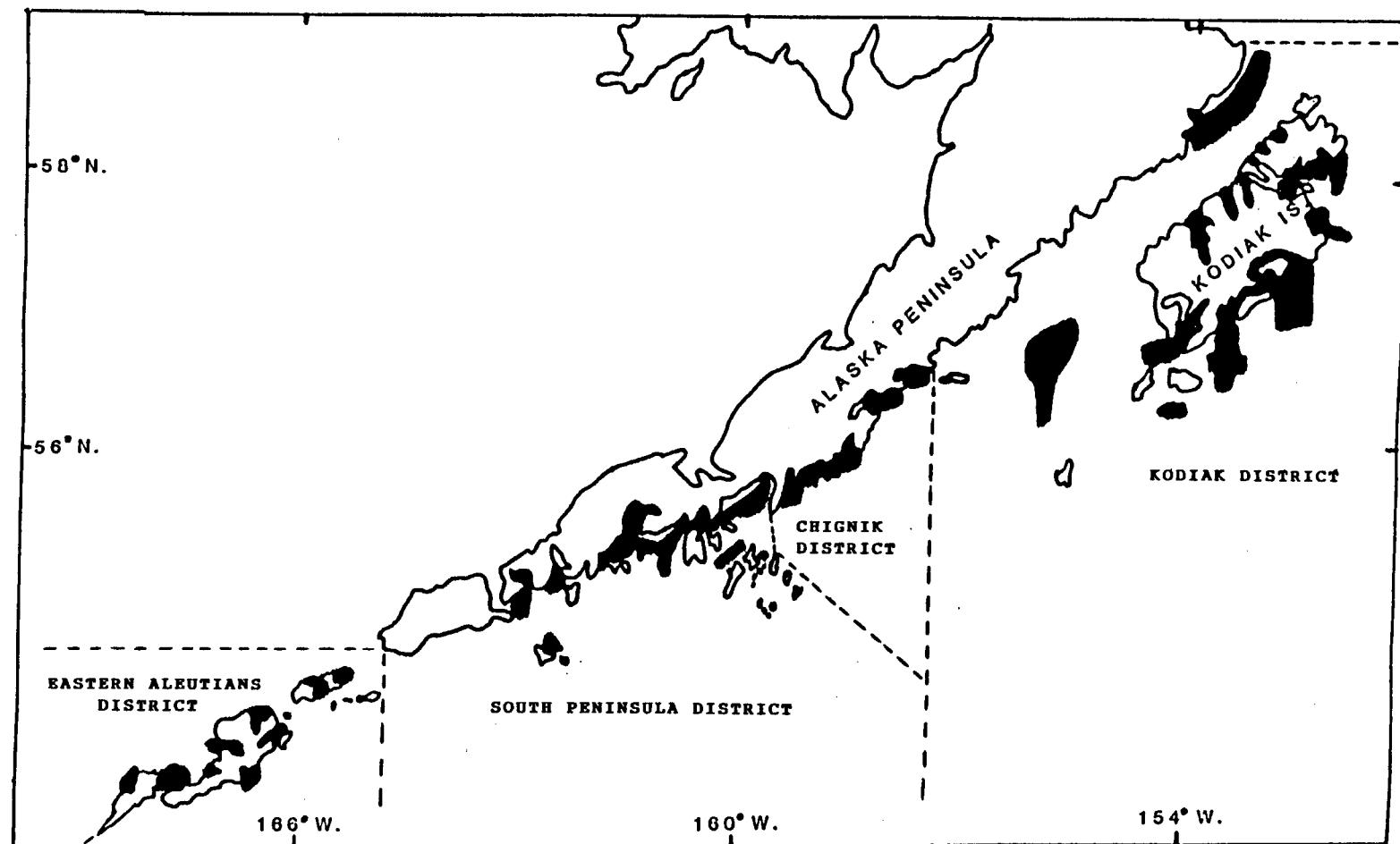


Figure 1. 1990 Westward Region crab trawl survey areas (dark portions) and districts.

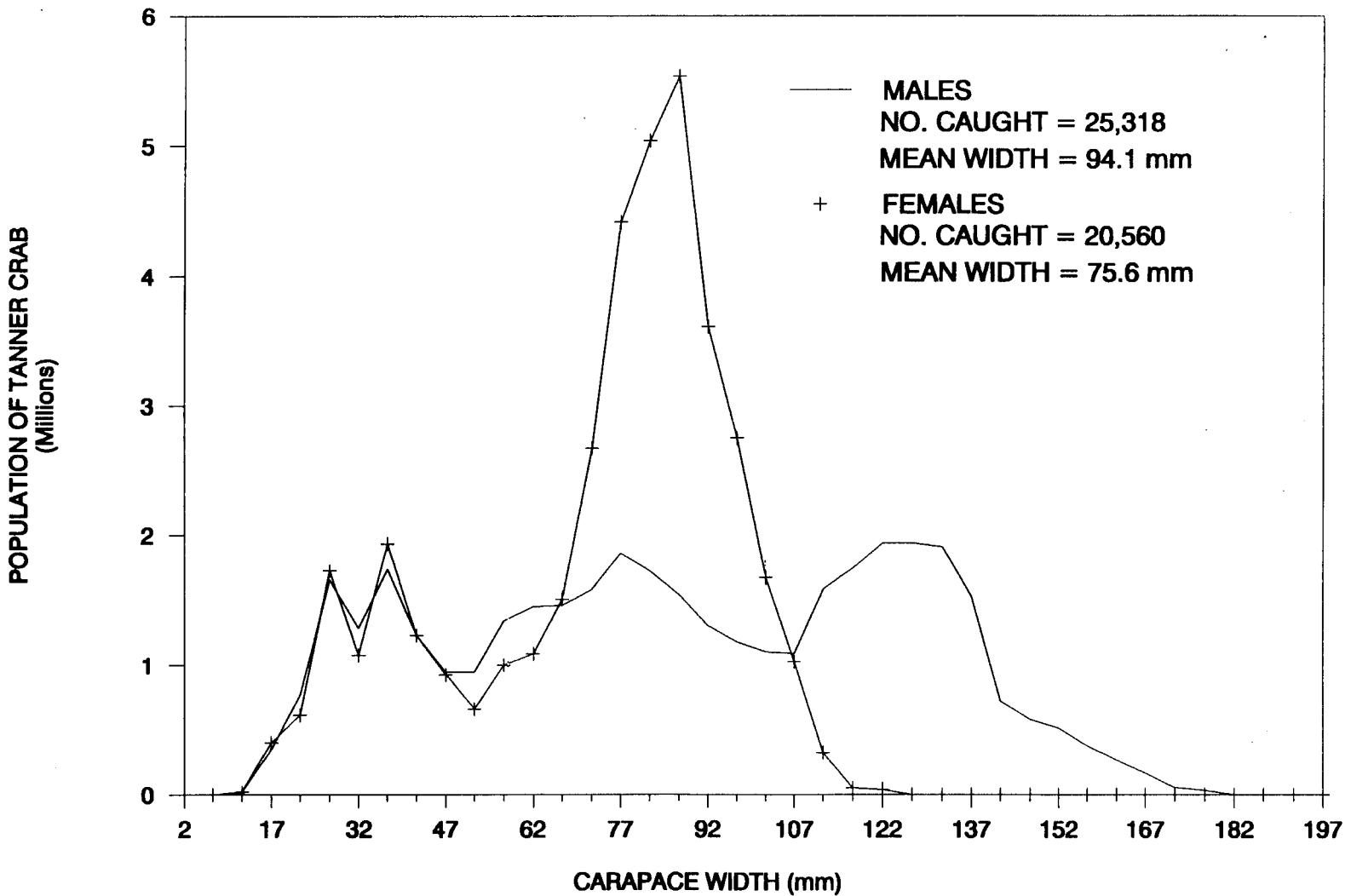


Figure 2. Carapace width frequency of male and female Tanner crab captured during the Kodiak trawl survey, 1990.

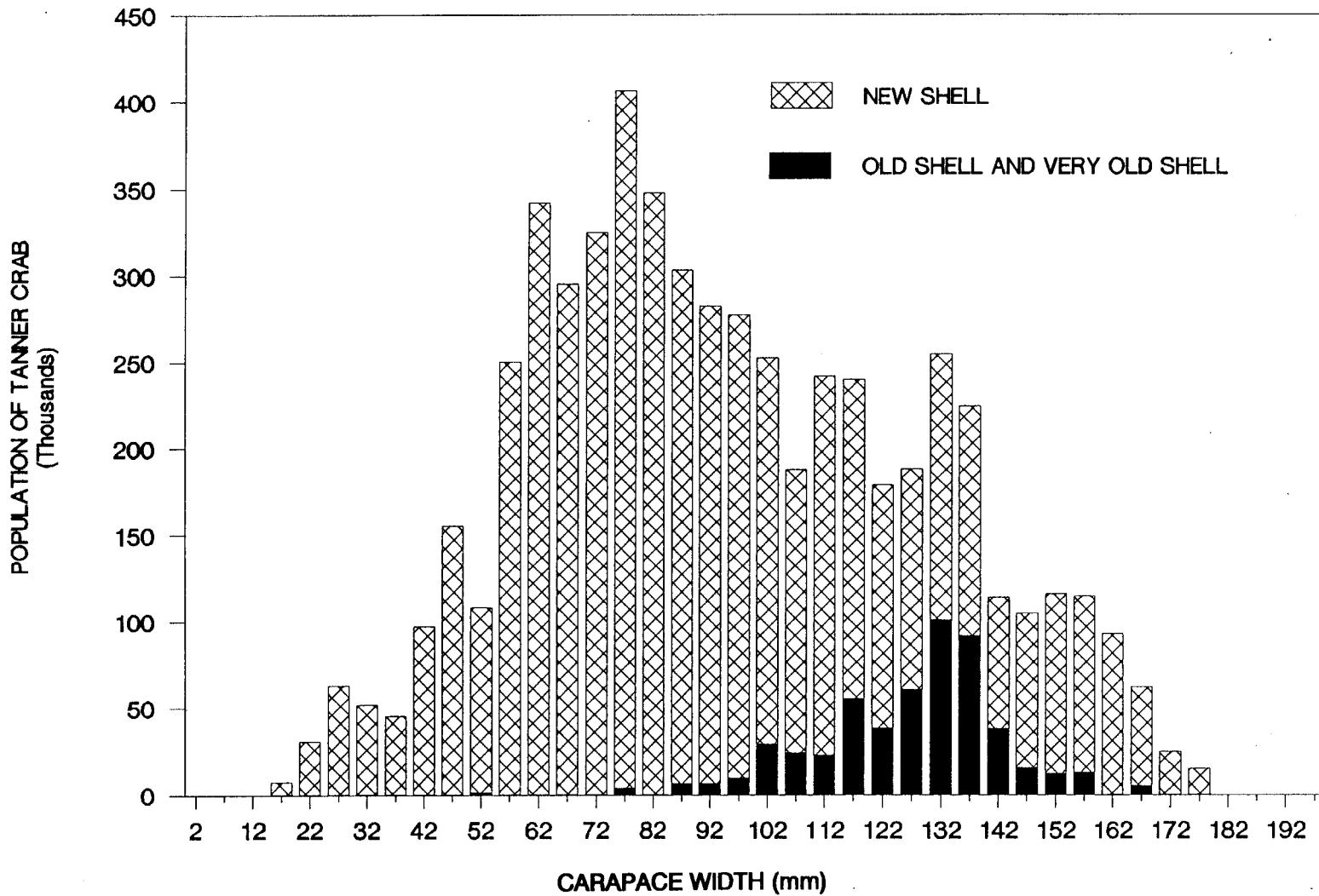


Figure 3. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Northeast Section, Kodiak trawl survey, 1990.

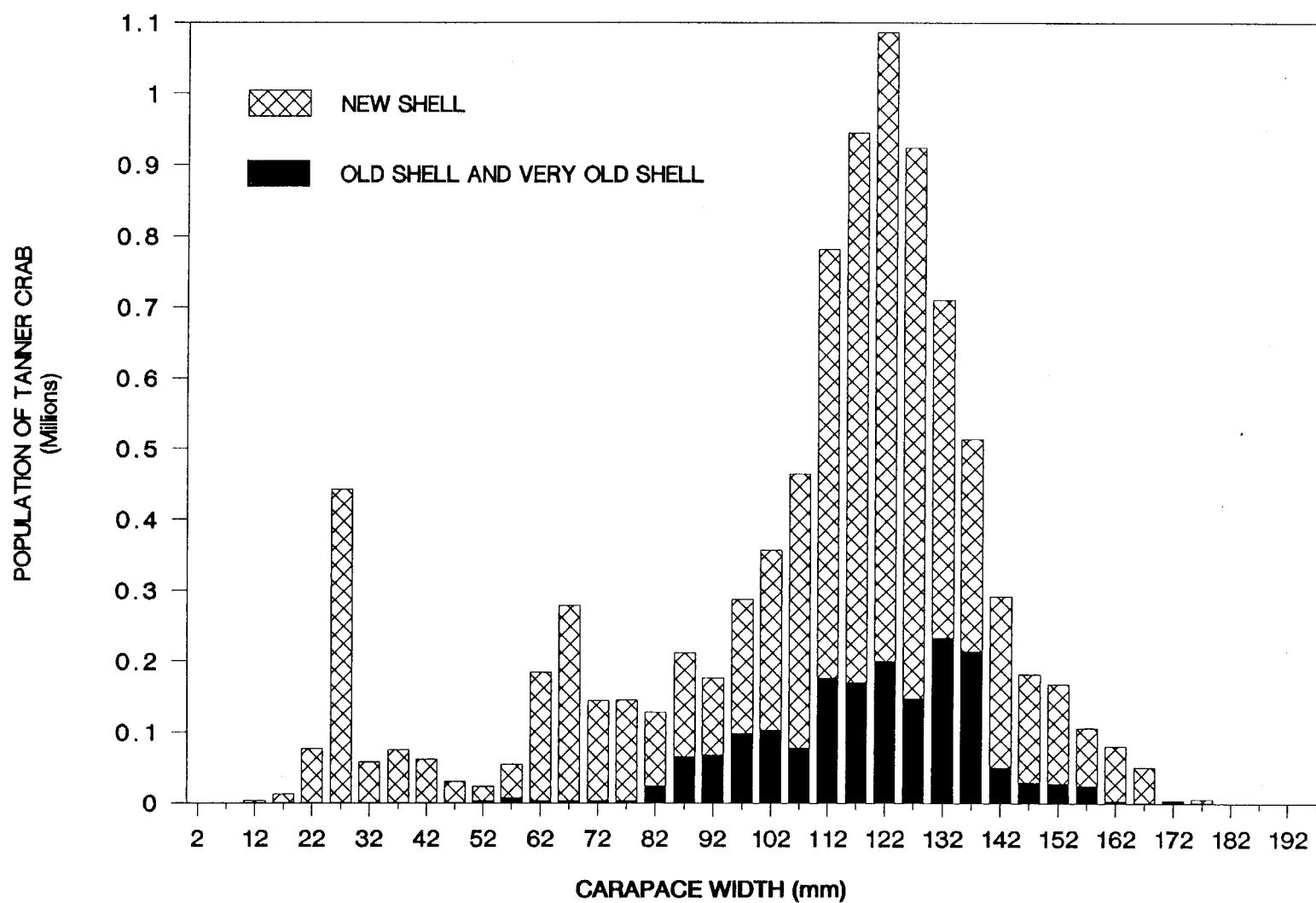


Figure 4. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Eastside Section, Kodiak trawl survey, 1990.

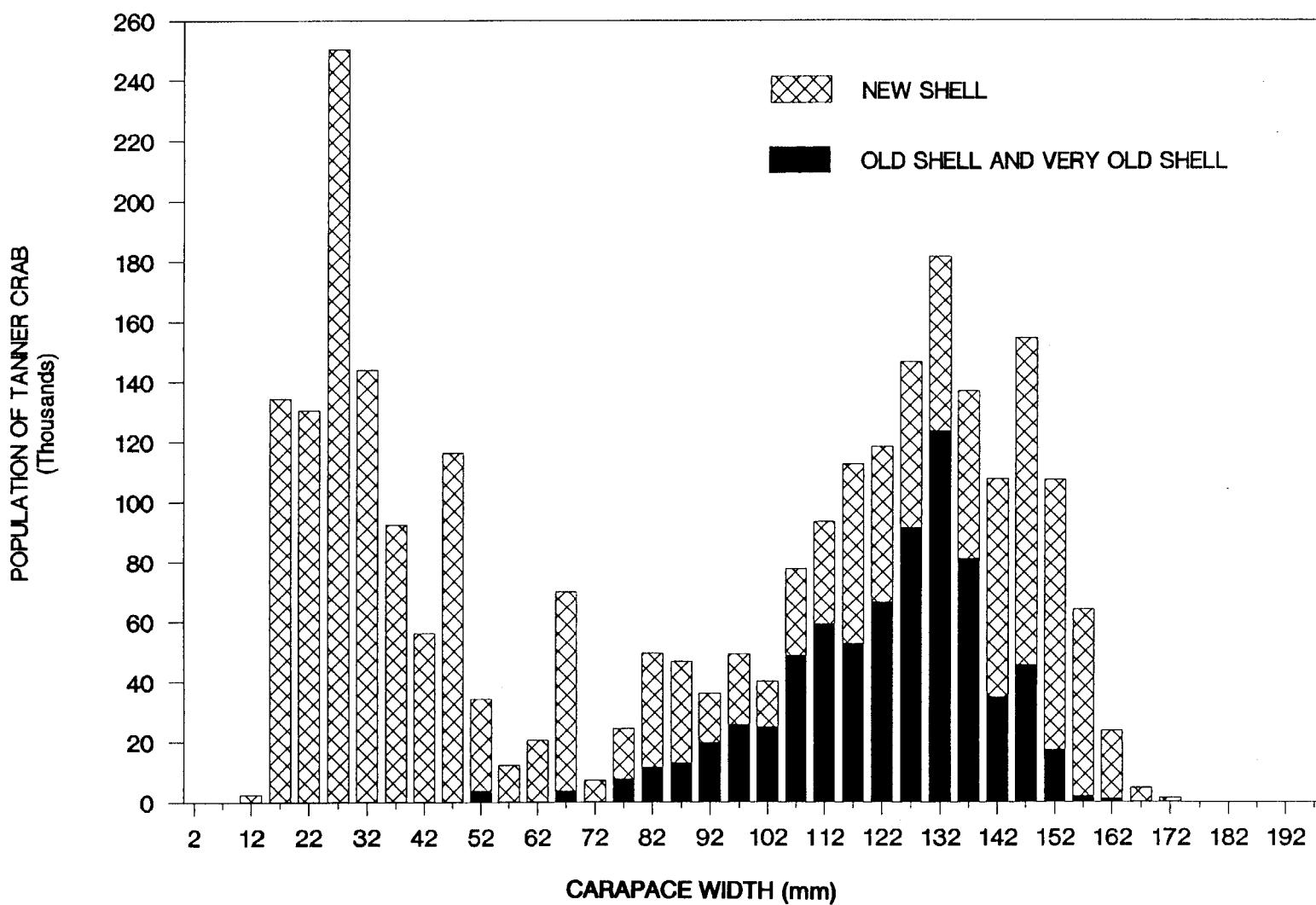


Figure 5. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Southeast Section, Kodiak trawl survey, 1990.

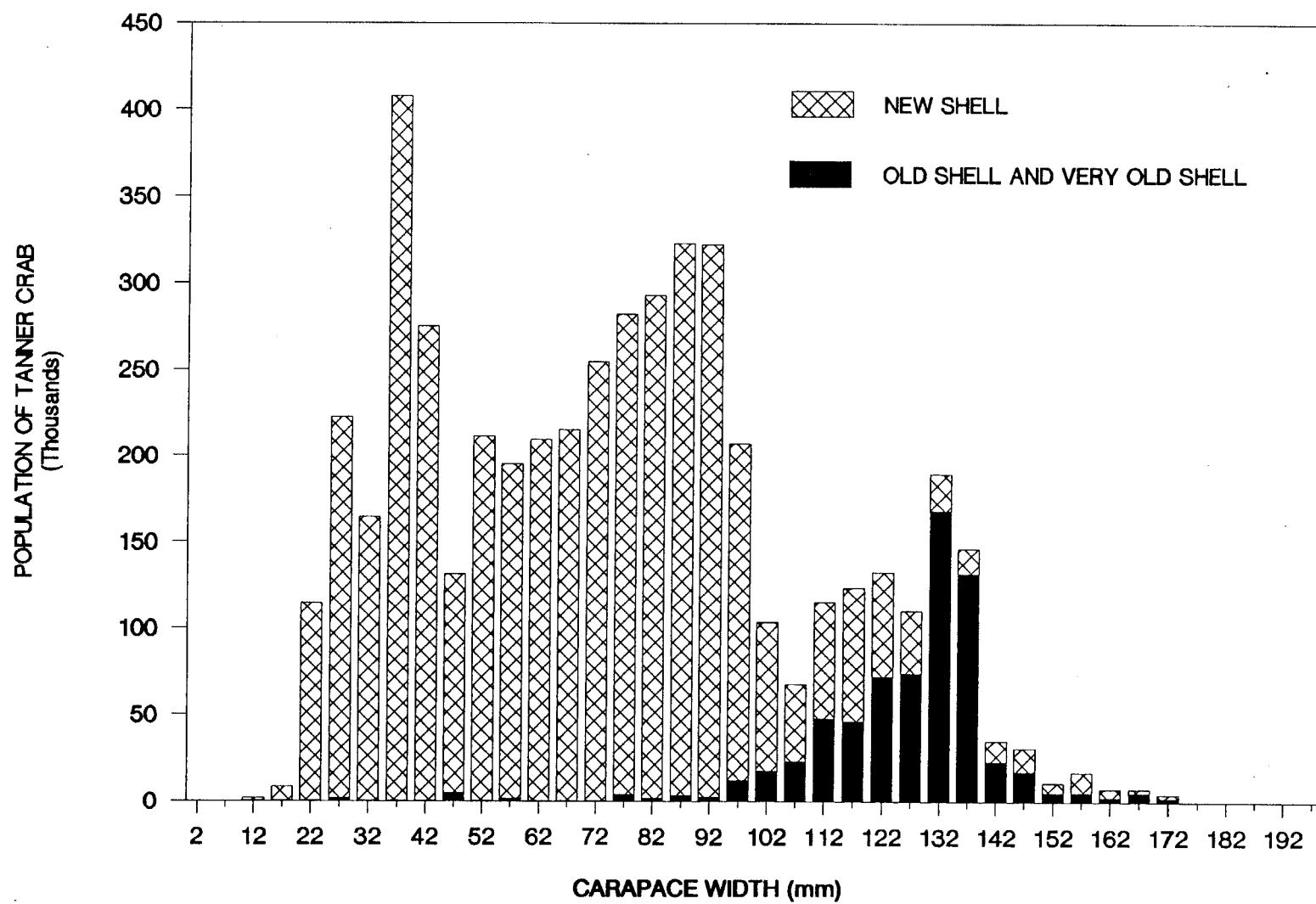


Figure 6. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Southwest Section, Kodiak trawl survey, 1990.

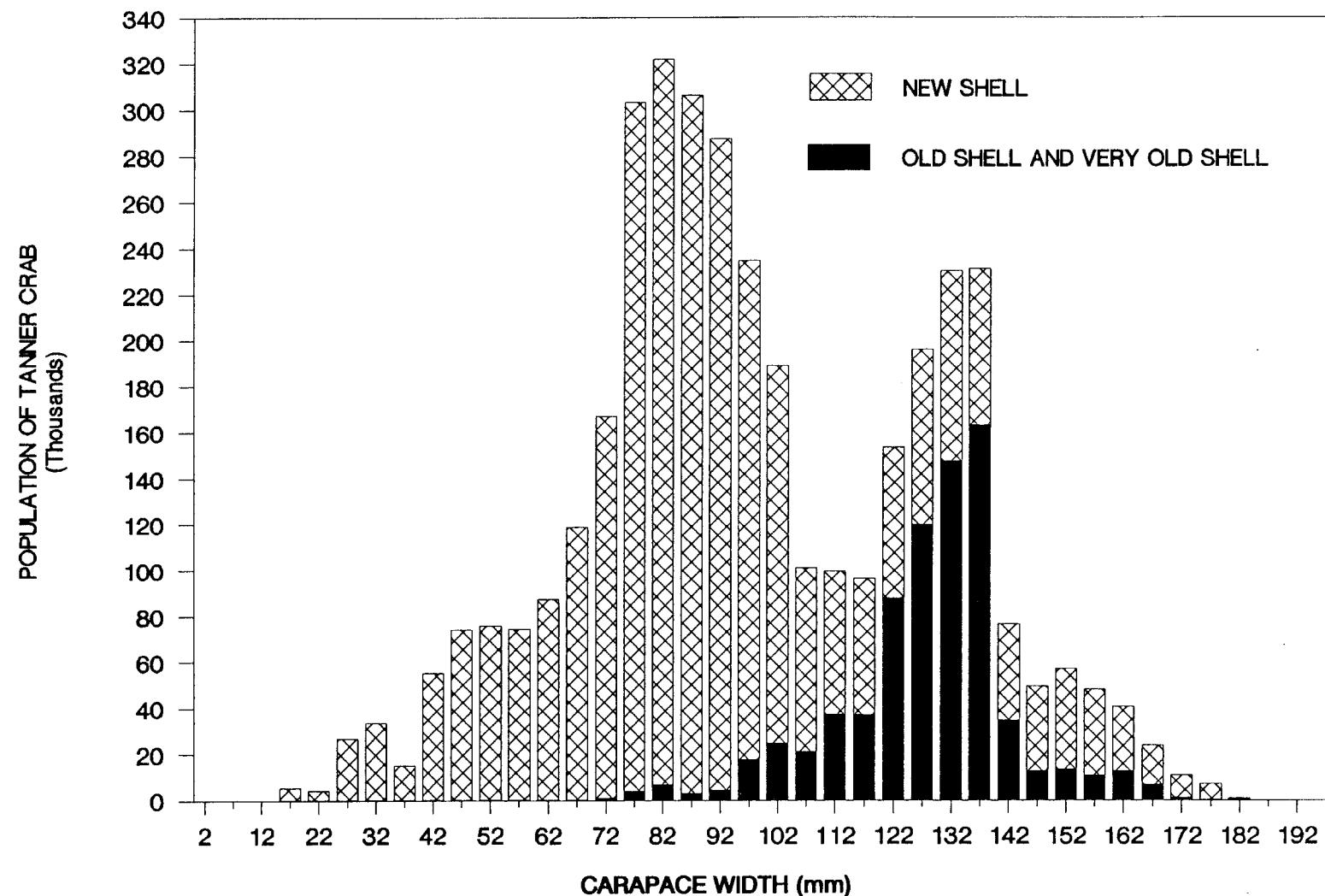


Figure 7. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Westside Section, Kodiak trawl survey, 1990.

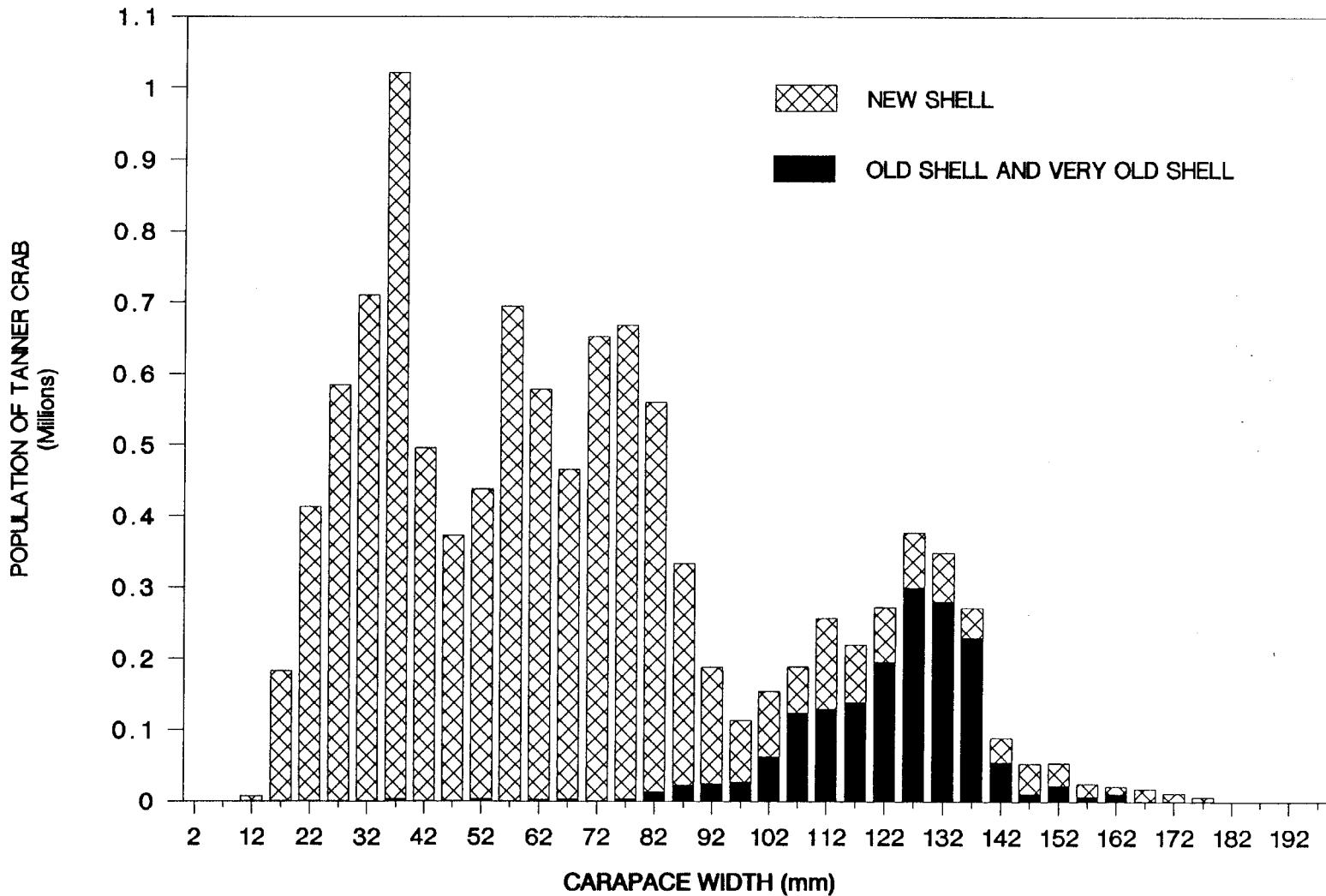


Figure 8. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the North Mainland Section, Kodiak trawl survey, 1990.

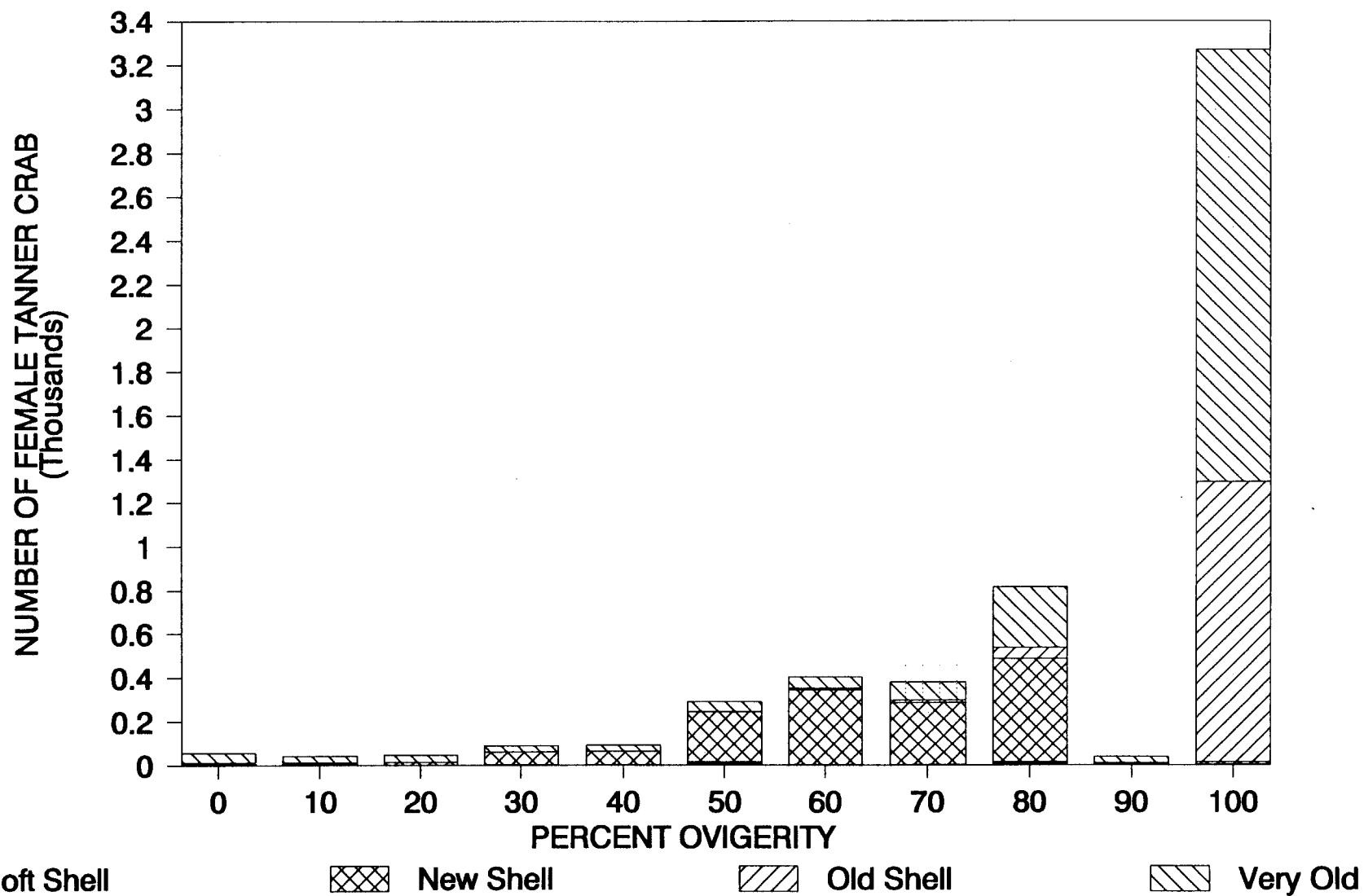


Figure 9. Percent ovigarity of female Tanner crab captured during the Kodiak trawl survey, 1990.

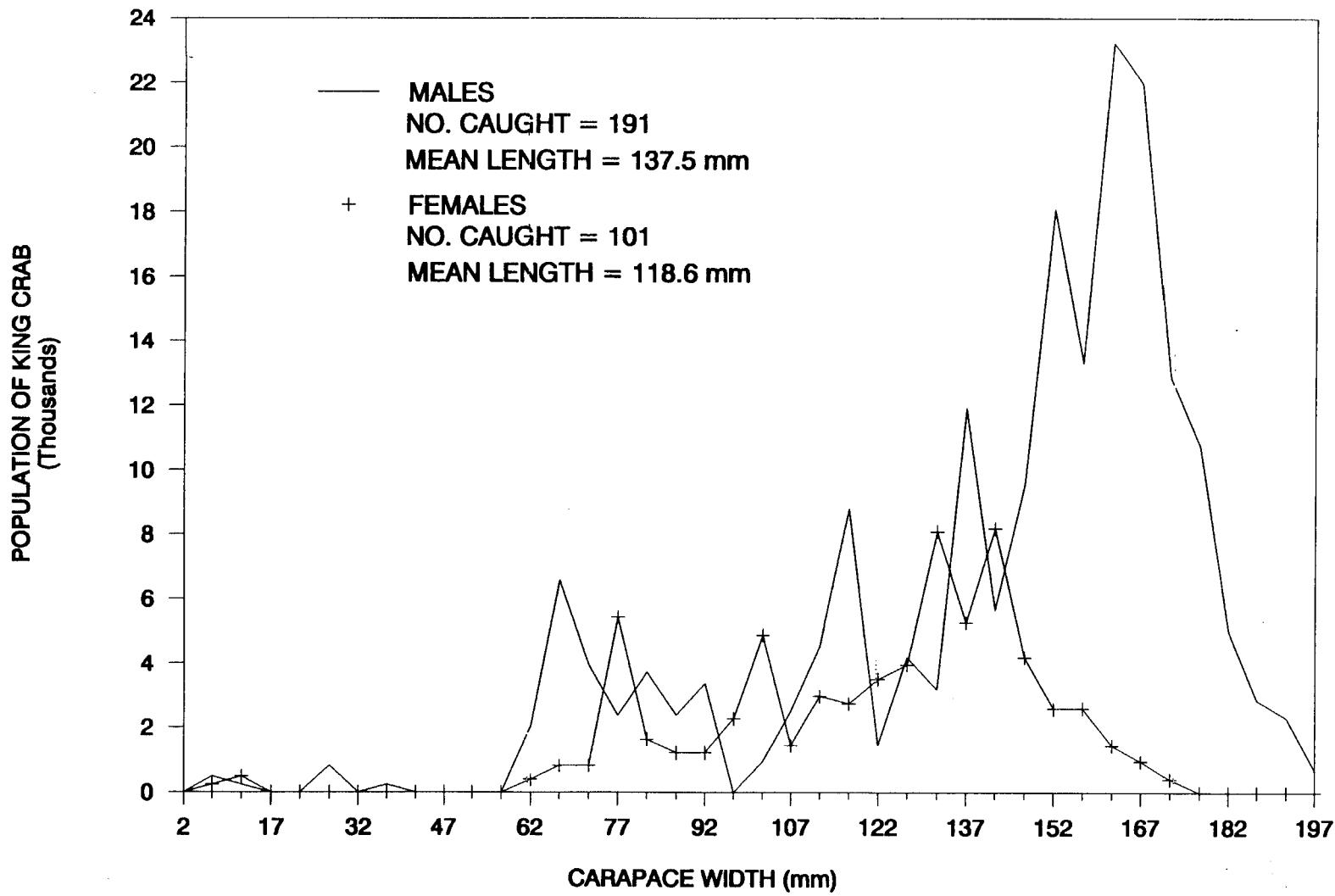


Figure 10. Carapace length frequency of male and female king crab captured during the Kodiak trawl survey, 1990.

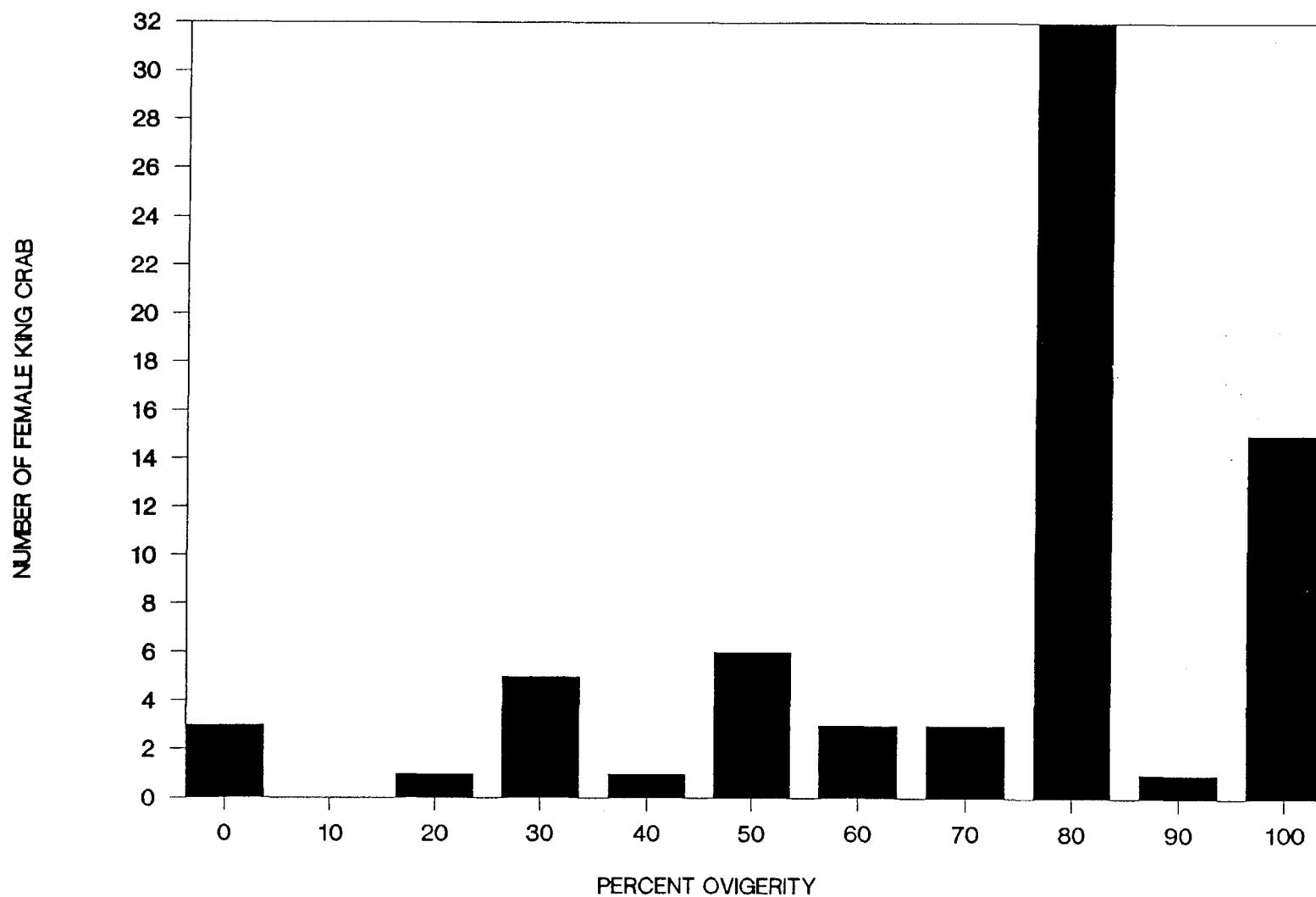


Figure 11. Percent ovigerty of female king crab crab captured during the Kodiak trawl survey, 1990.

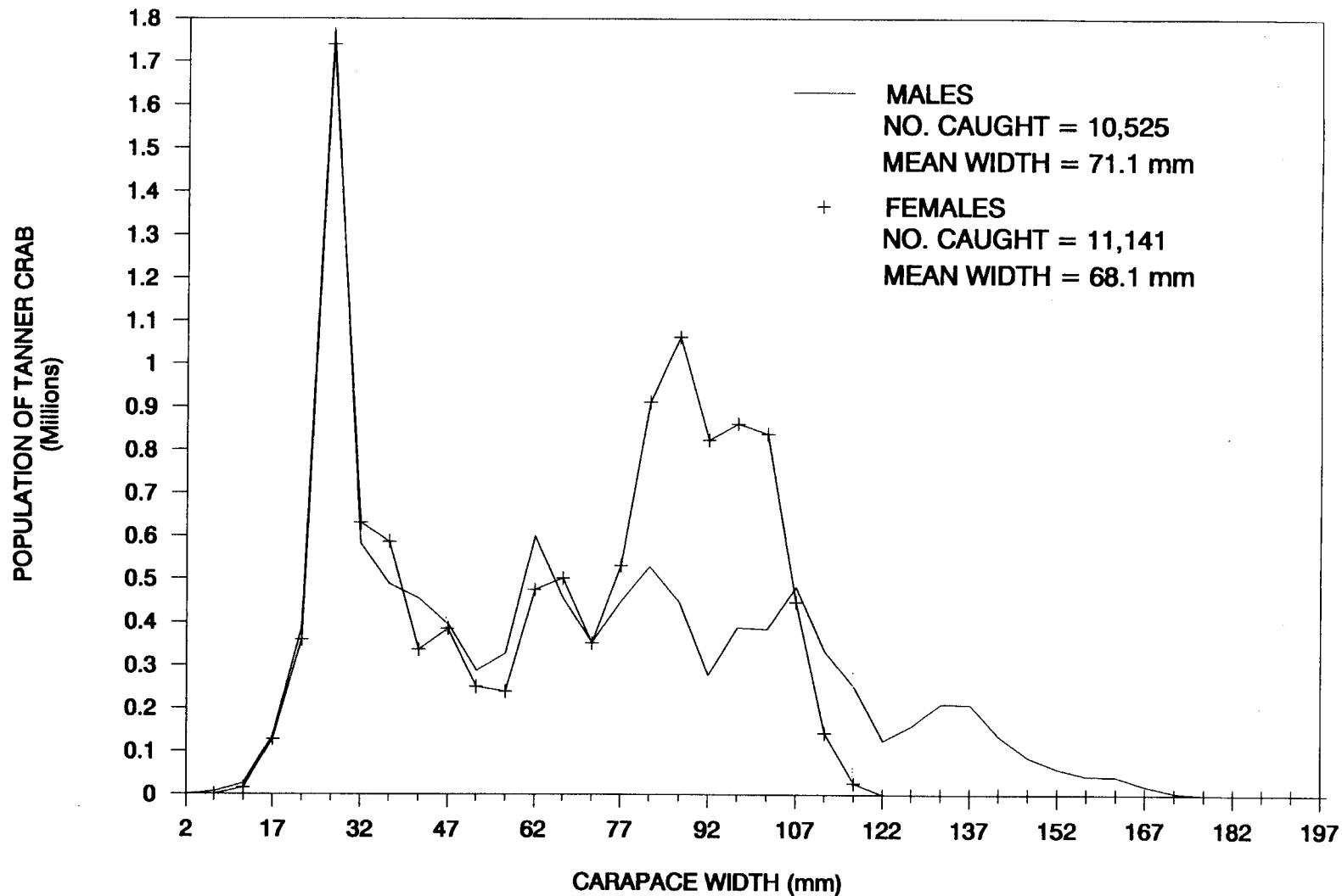


Figure 12. Carapace width frequency of male and female Tanner crab captured in the South Peninsula District during the Alaska Peninsula trawl survey, 1990.

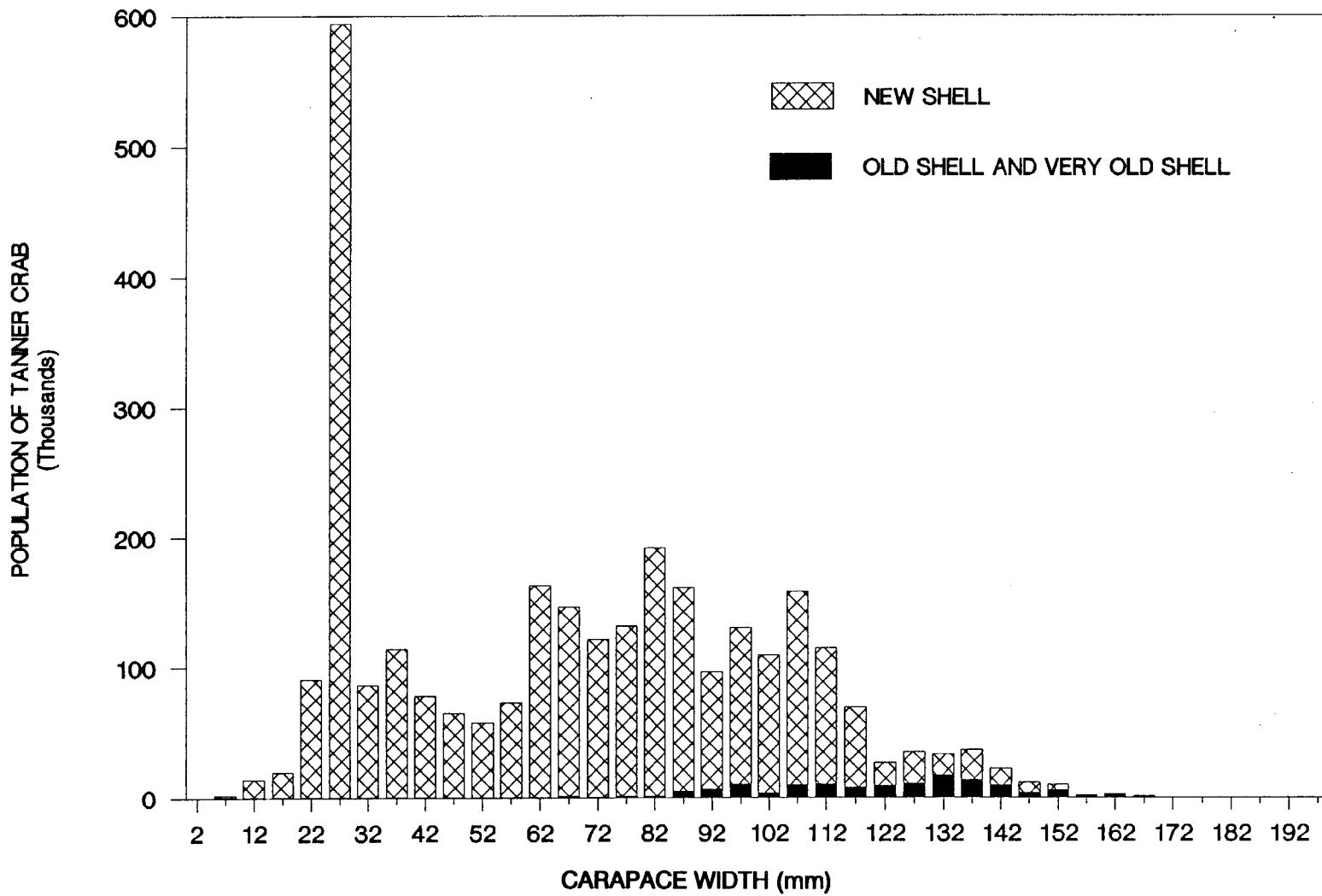


Figure 13. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Ikatan and Morzhovoi Bays, Alaska Peninsula trawl survey, 1990.

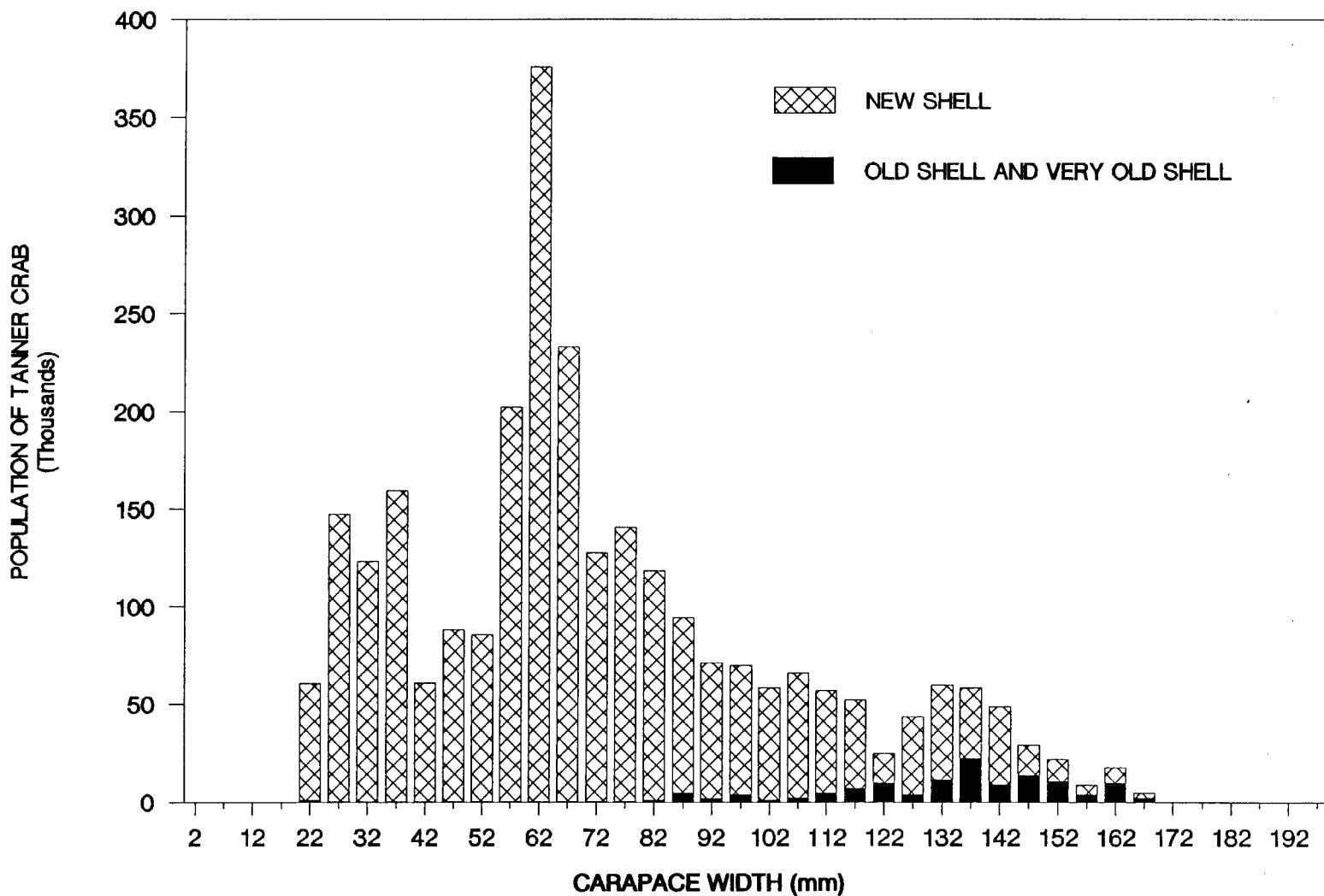


Figure 14. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Cold Bay and Belkofski Bay, Alaska Peninsula trawl survey, 1990.

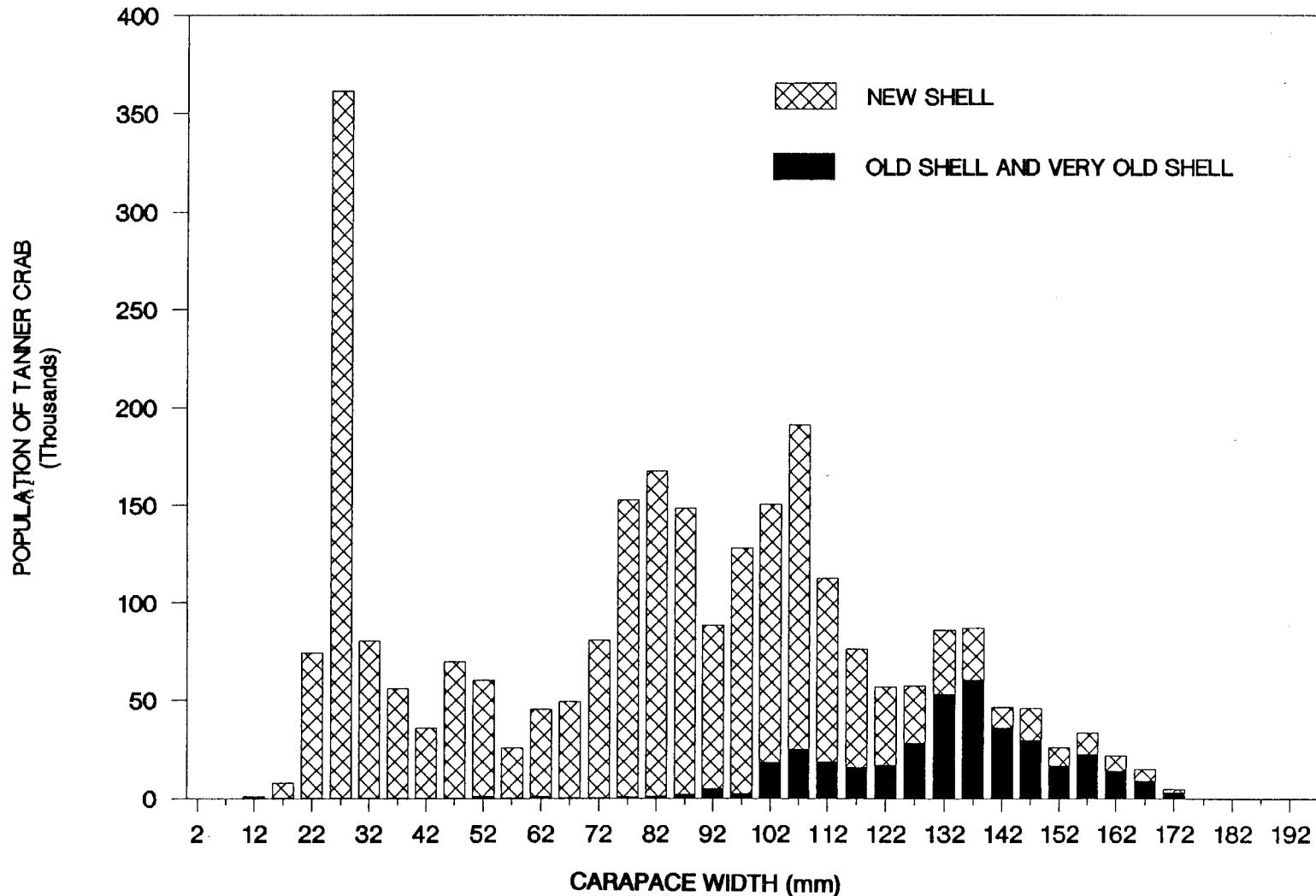


Figure 15. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Pavlof and Volcano Bays, Alaska Peninsula trawl survey, 1990.

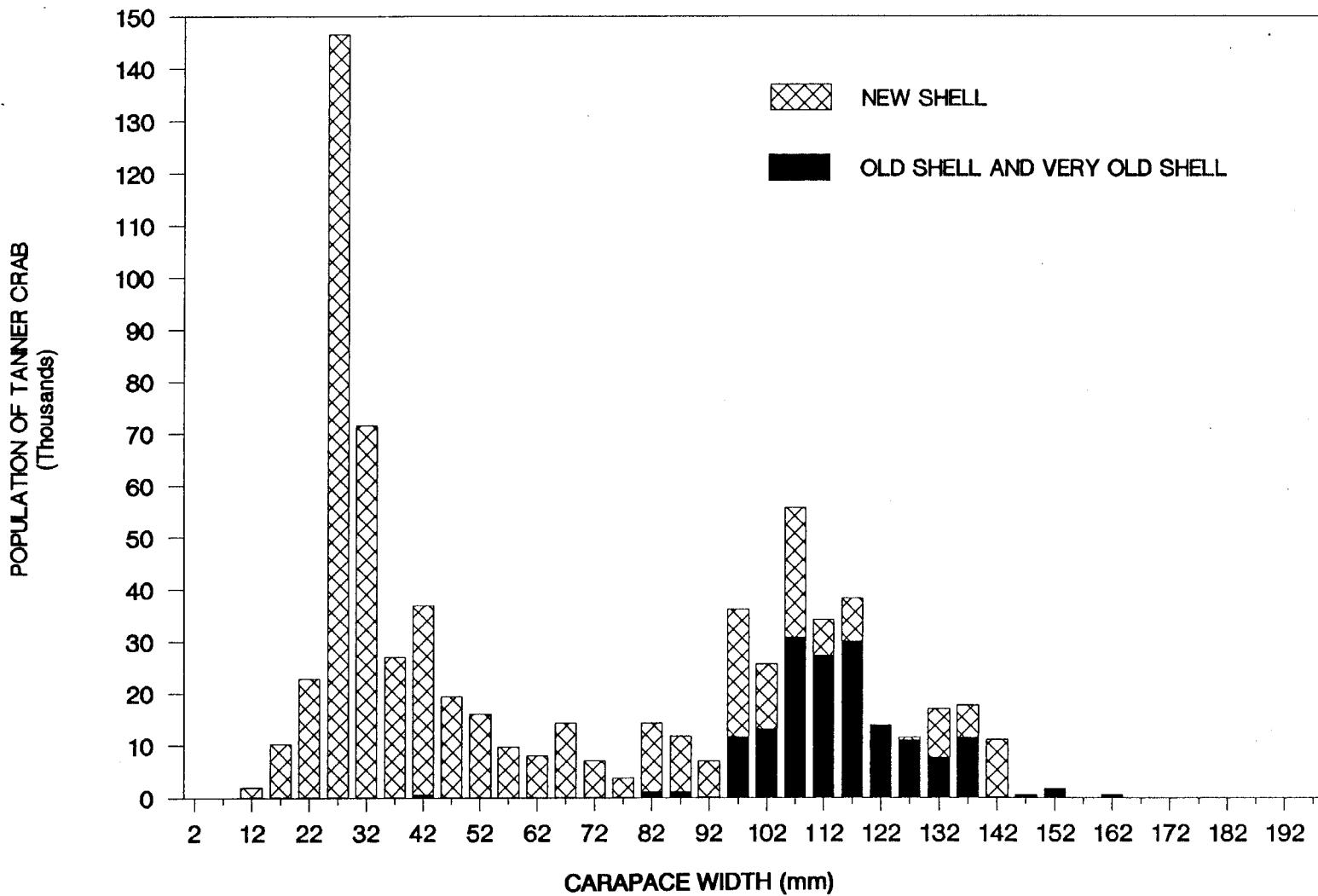


Figure 16. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Beaver and Balboa Bays, Alaska Peninsula trawl survey, 1990.

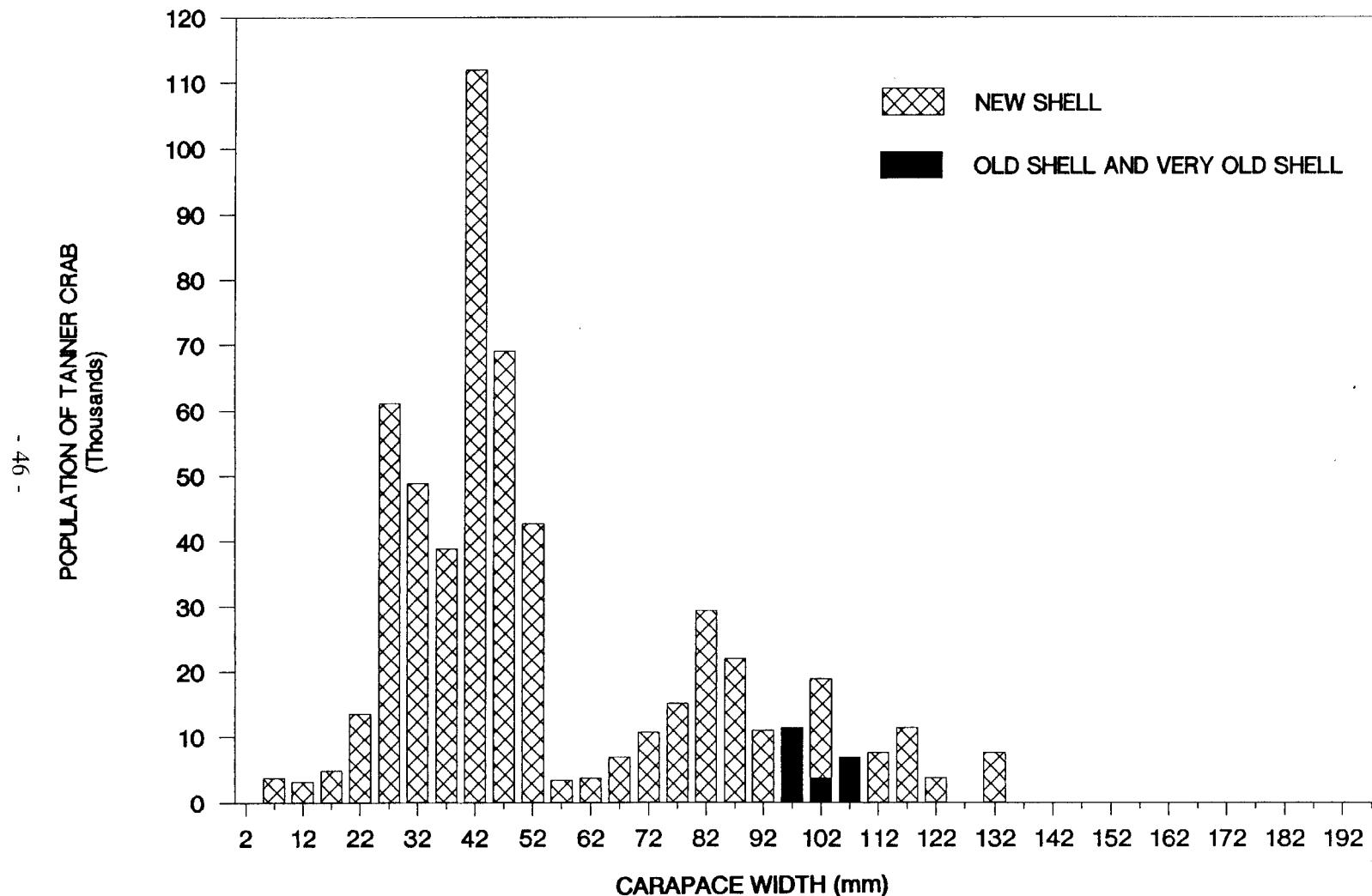


Figure 17. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Sanak Island area, Alaska Peninsula trawl survey, 1990.

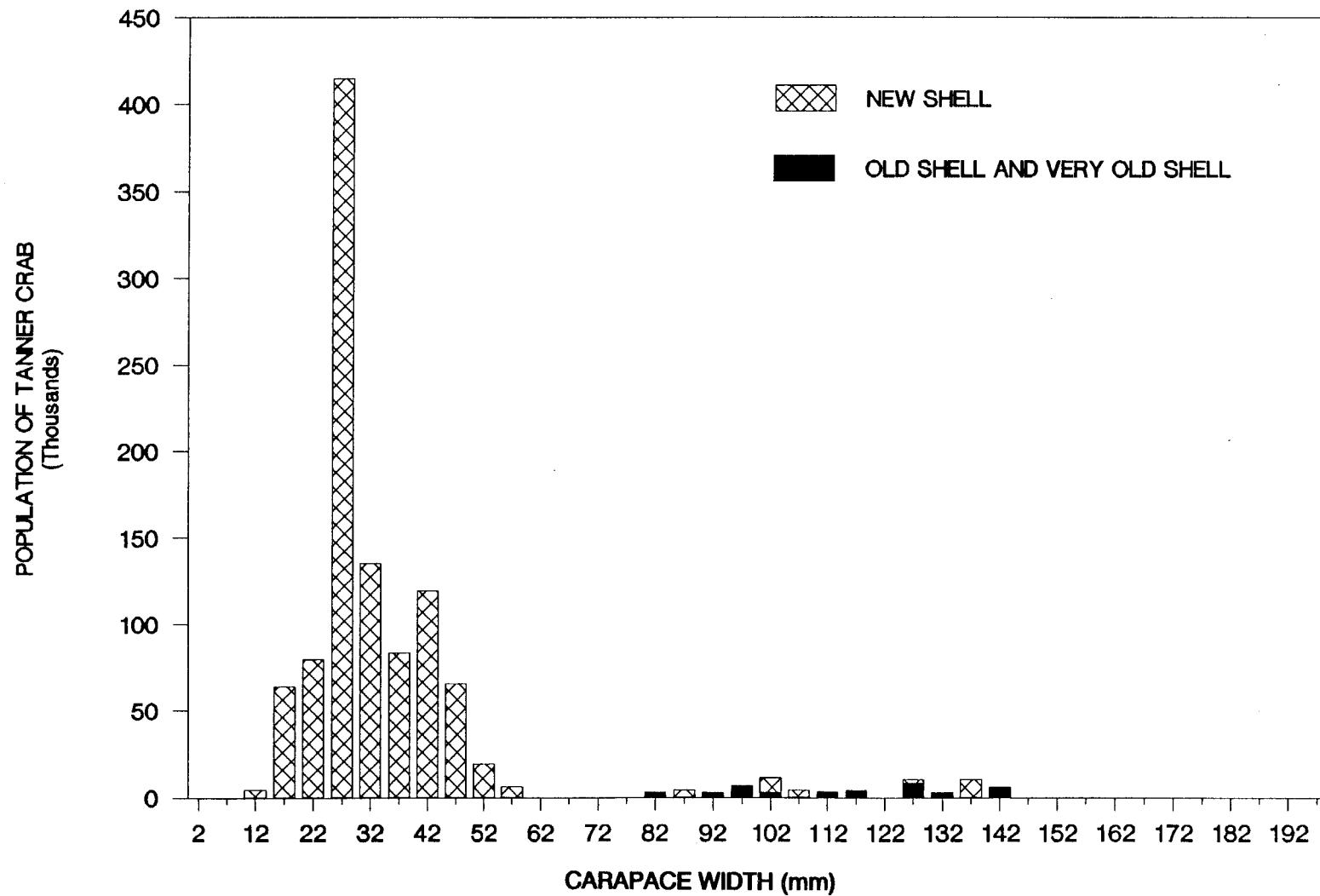


Figure 18. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Stepovak Bay, Alaska Peninsula trawl survey, 1990.

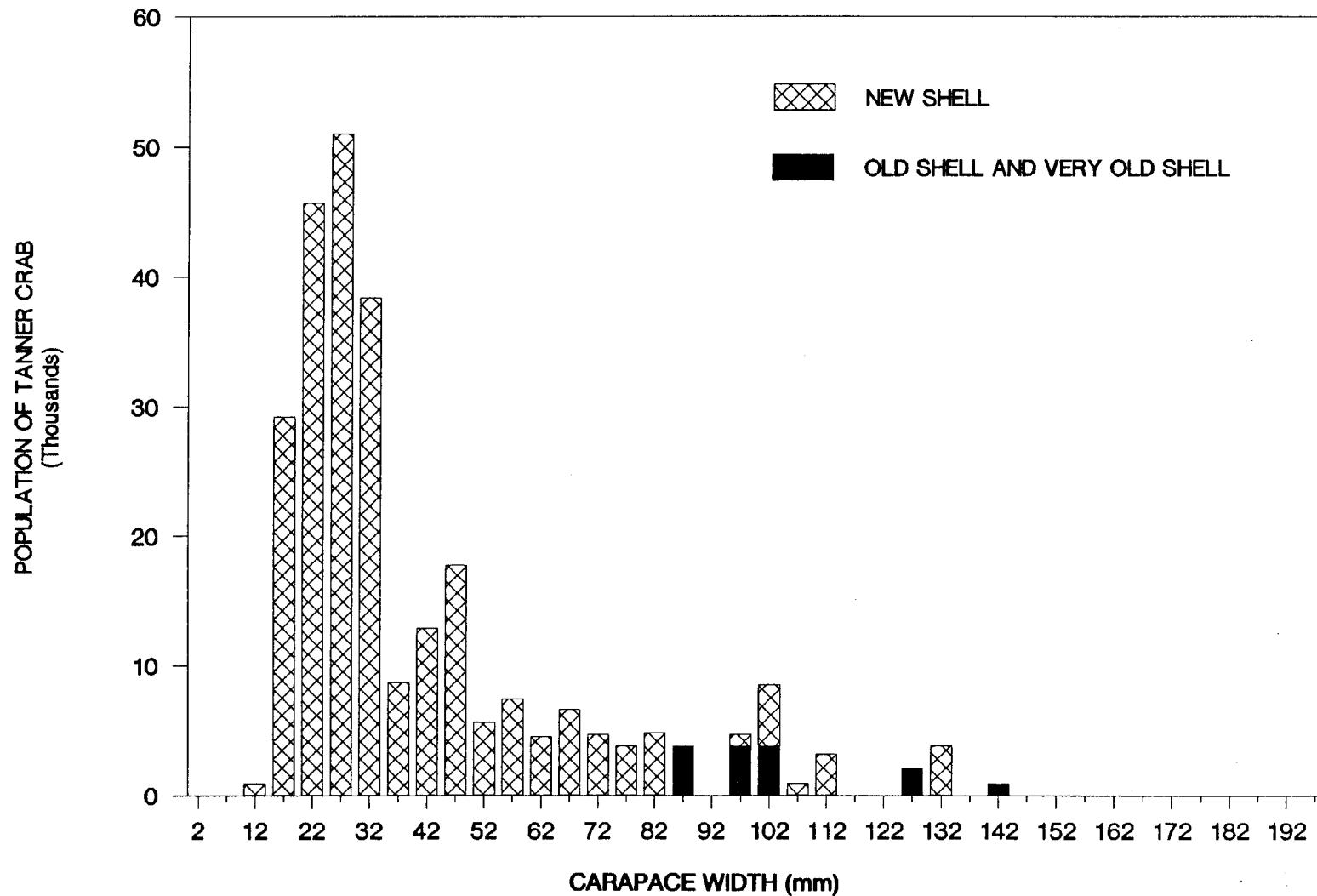


Figure 19. Carapace width frequency by shell condition of the estimated population of male Tanner crab in West Nagai Strait, Alaska Peninsula trawl survey, 1990.

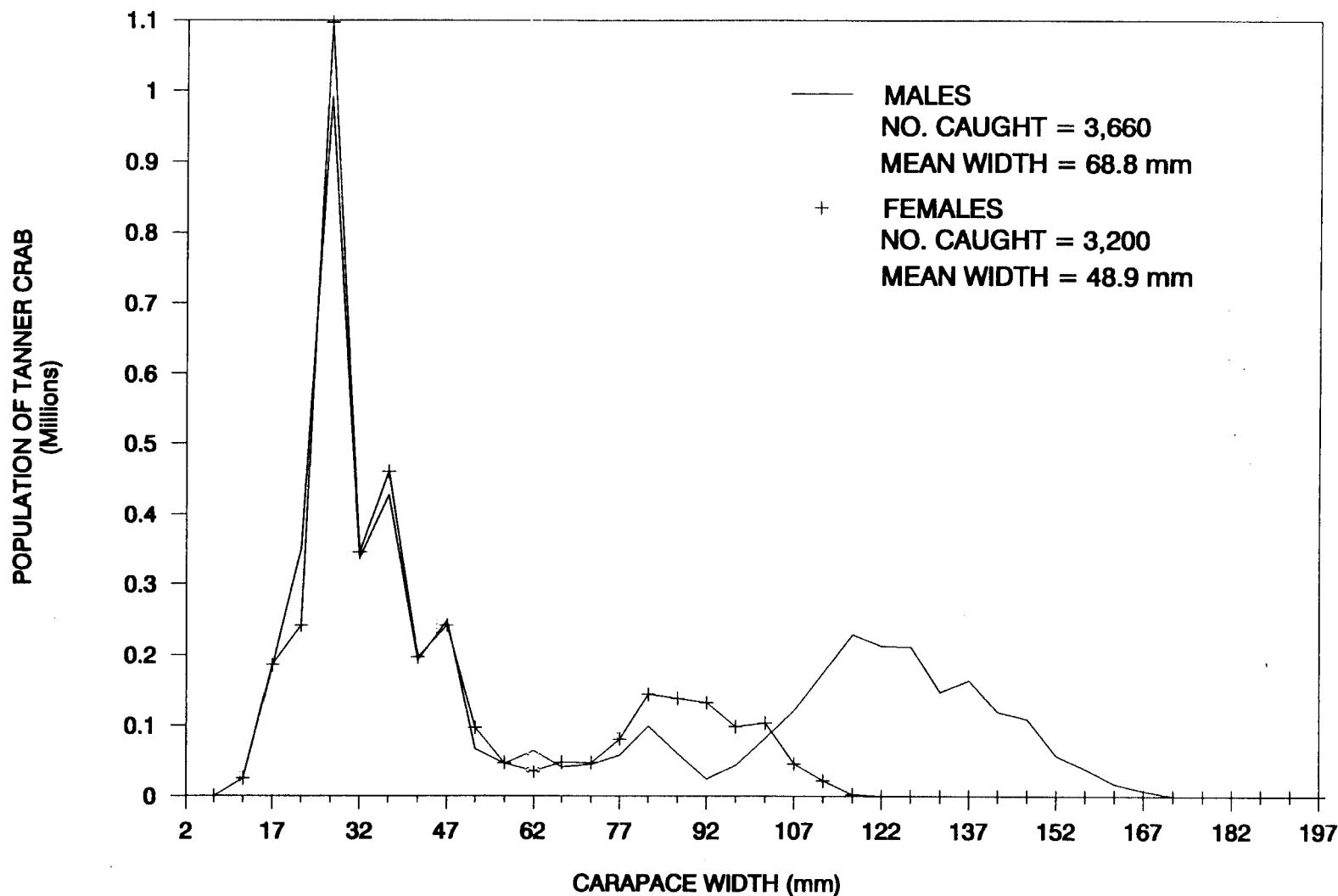


Figure 20. Carapace width frequency of male and female Tanner crab from the Chignik District during the Alaska Peninsula trawl survey, 1990.

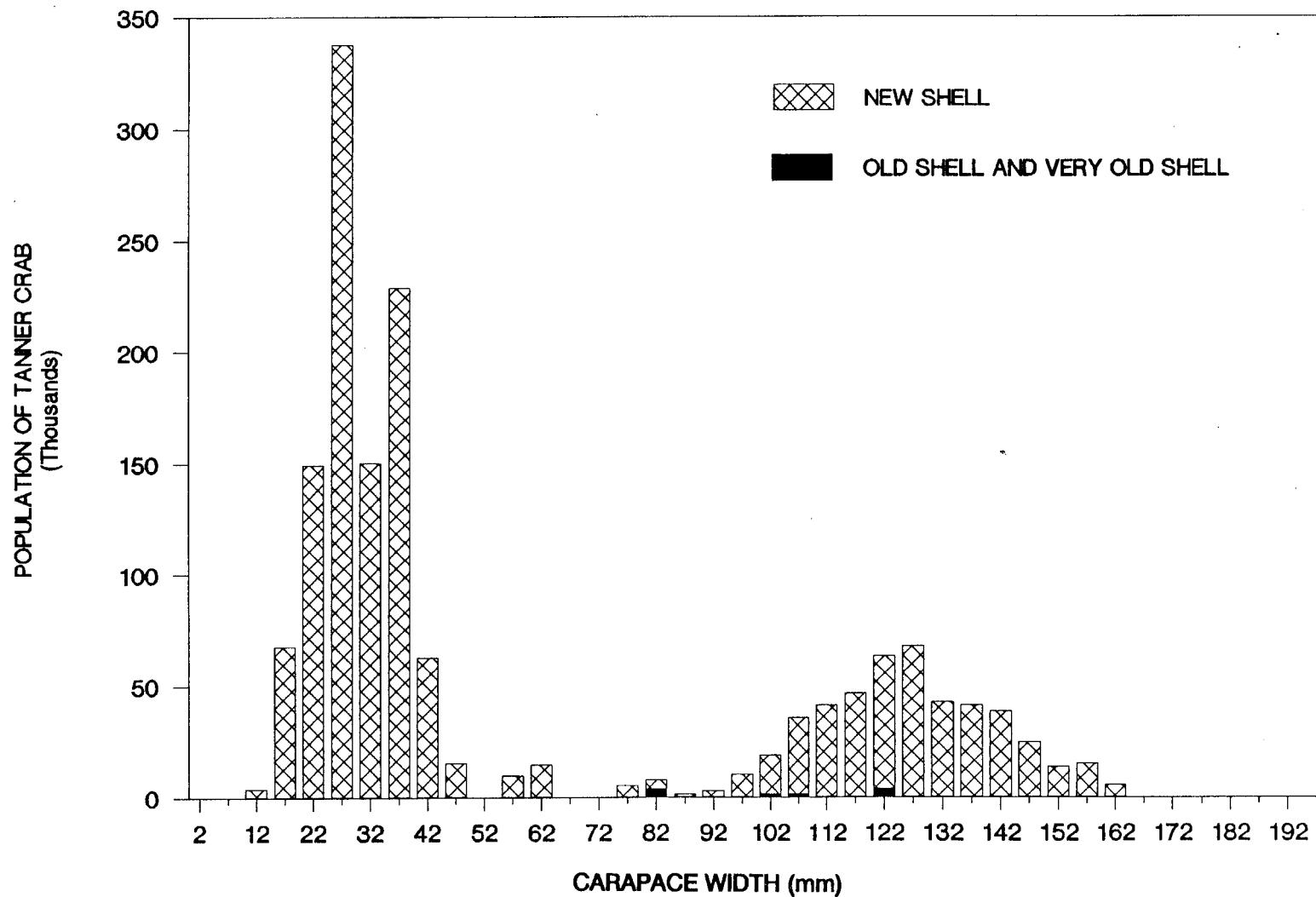


Figure 21. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Ivanof Bay, Alaska Peninsula trawl survey, 1990.

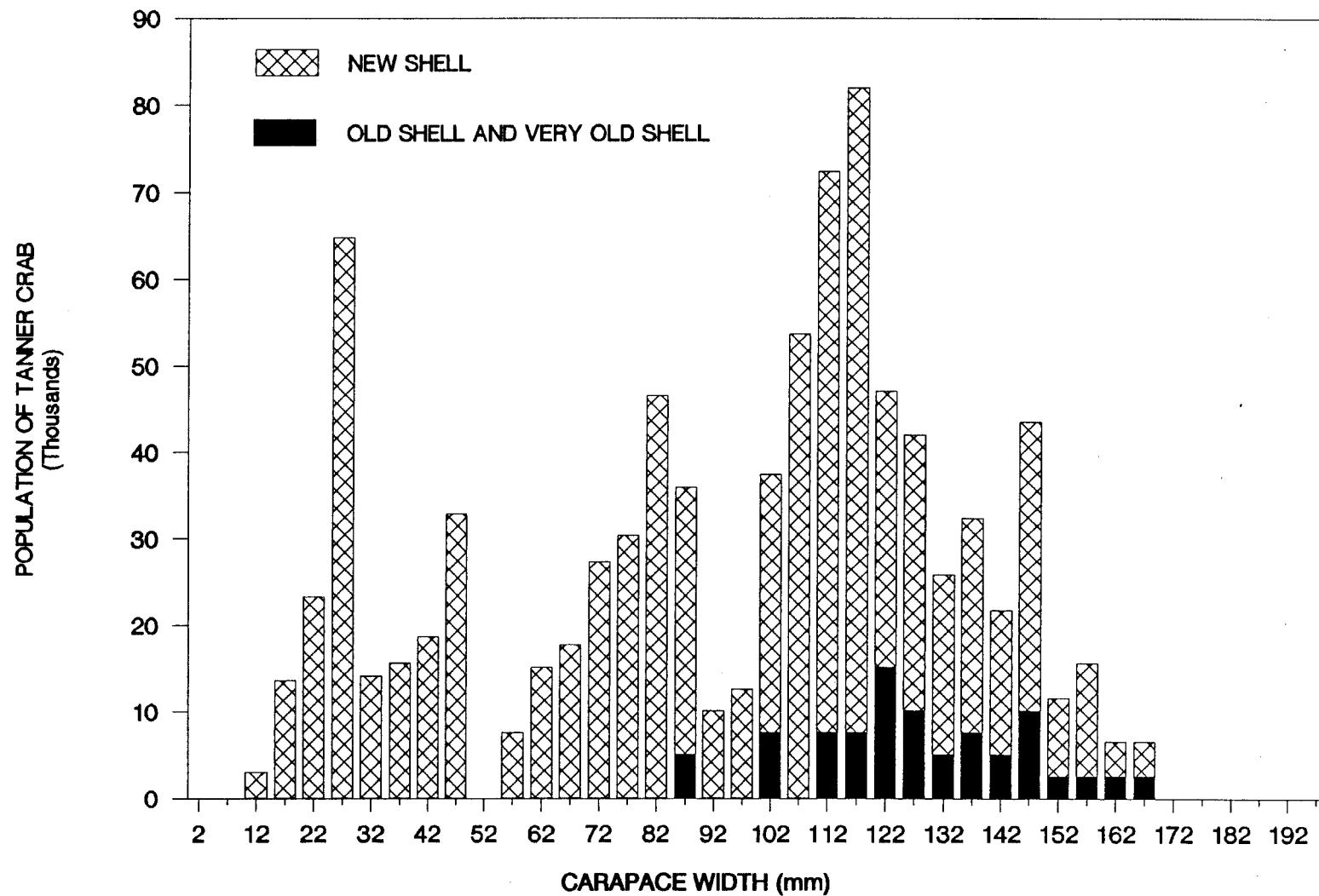


Figure 22. Carapace width frequency by shell condition of the estimated population of male Tanner crab in the Mitrofania Island area, Alaska Peninsula trawl survey, 1990.

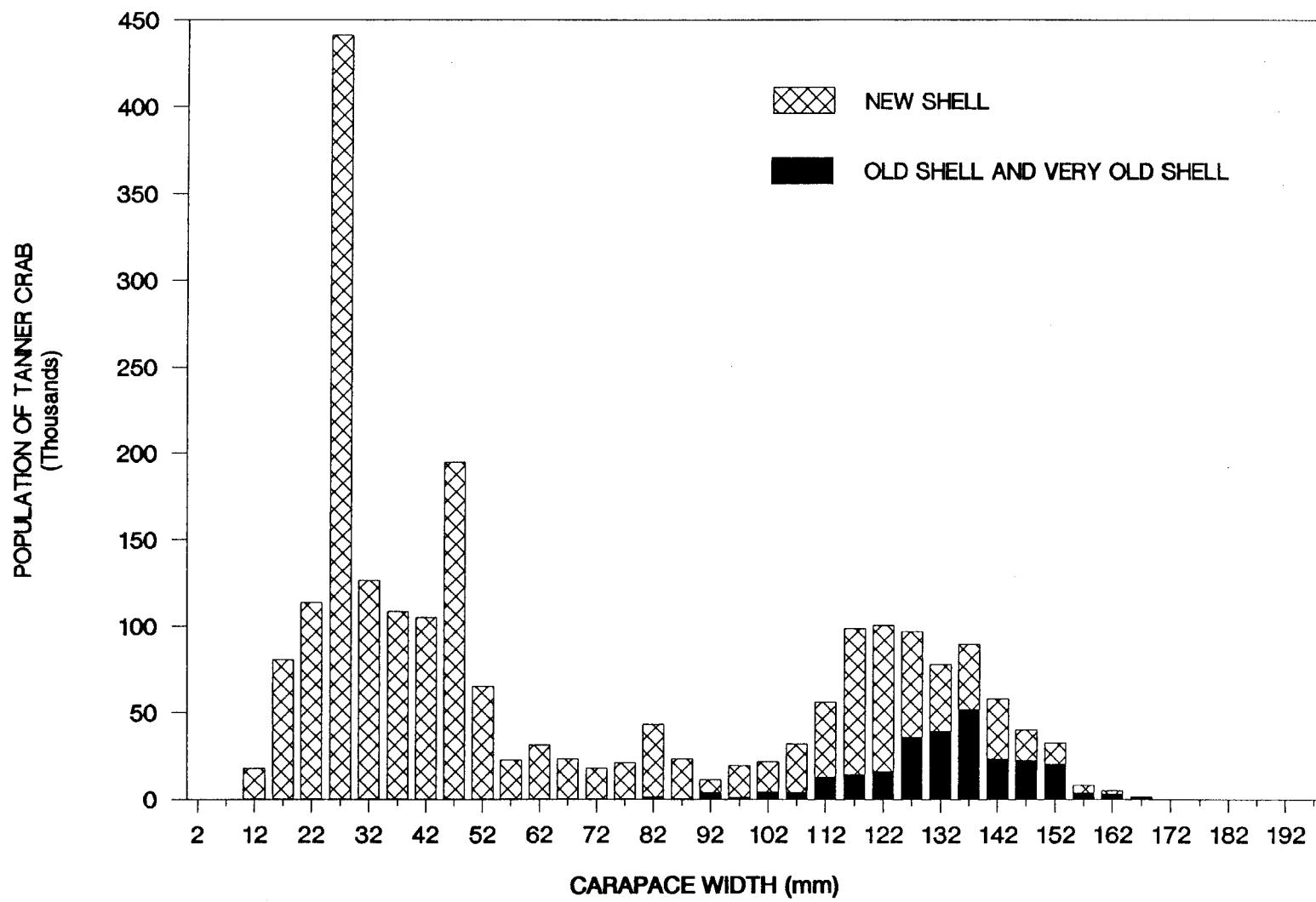


Figure 23. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Chignik Bay, Alaska Peninsula trawl survey, 1990.

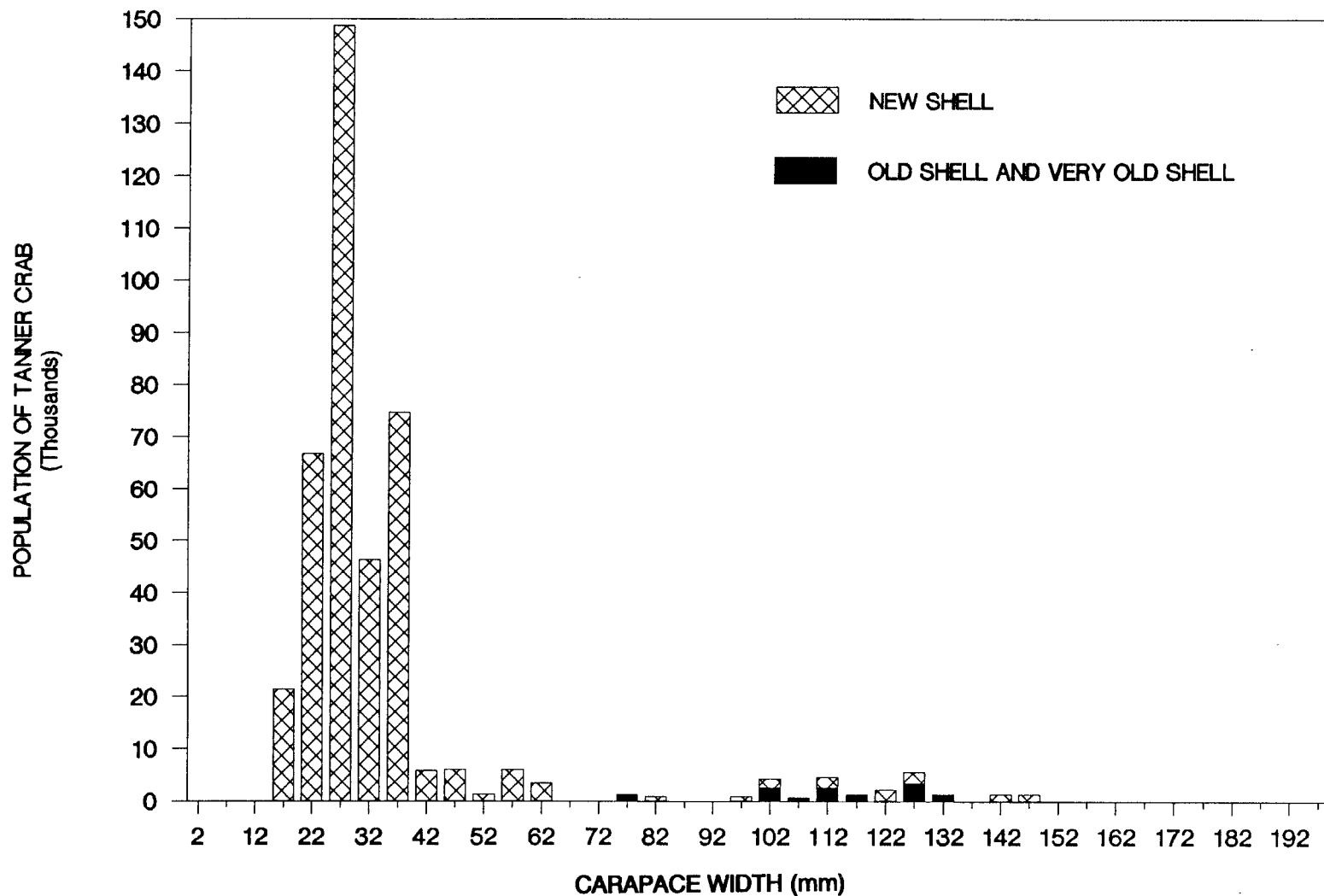


Figure 24. Carapace width frequency by shell condition of the estimated population of male Tanner crab in Kujulik Bay, Alaska Peninsula trawl survey, 1990.

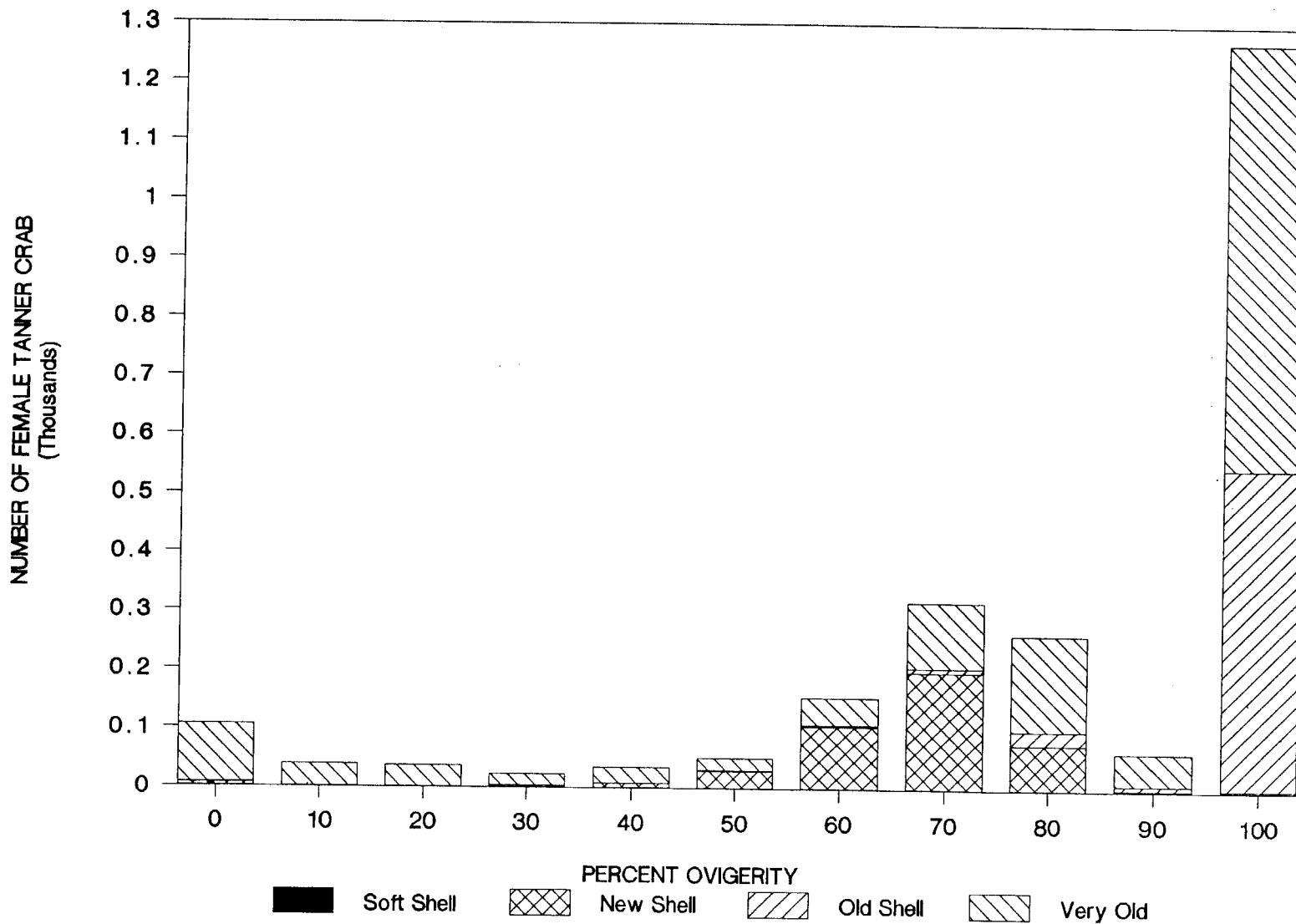


Figure 25. Percent ovigerty of female Tanner crab from the South Peninsula District captured during the 1990 bottom trawl survey.

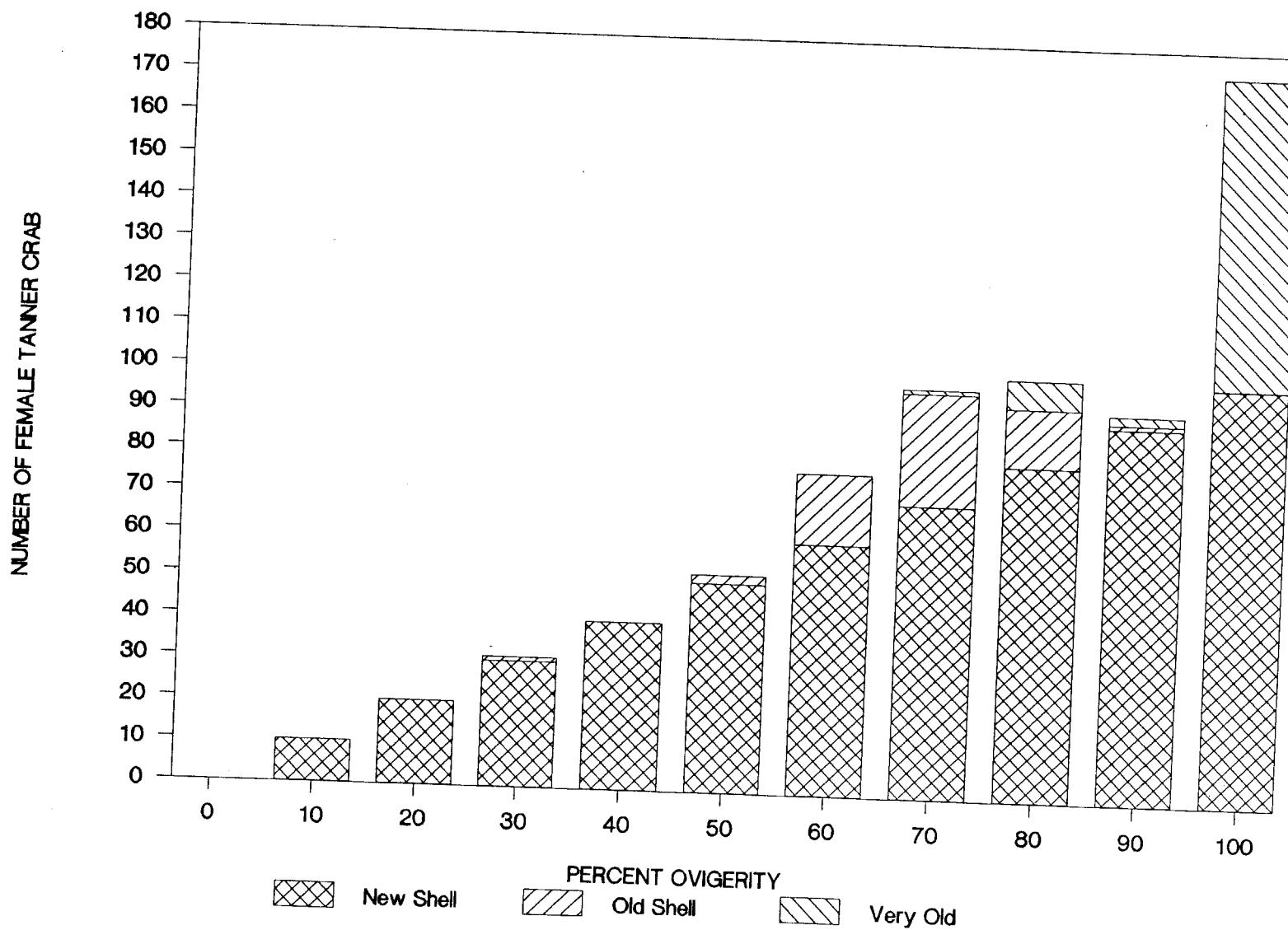


Figure 26. Percent ovigarity of female Tanner crab from the Chignik District captured during the 1990 bottom trawl survey.

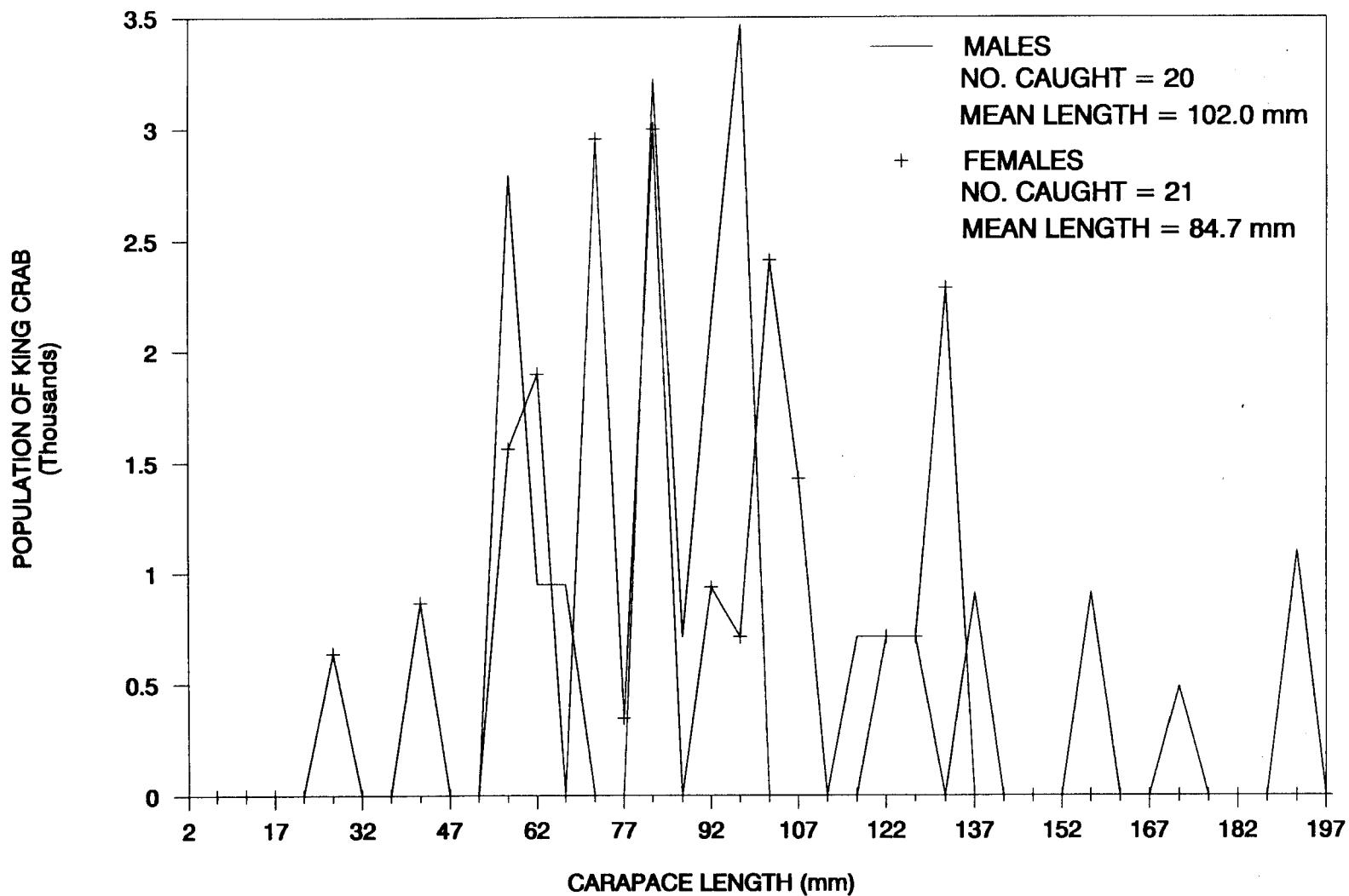


Figure 27. Carapace length frequency of male and female king crab captured during the Alaska Peninsula trawl survey, 1990.

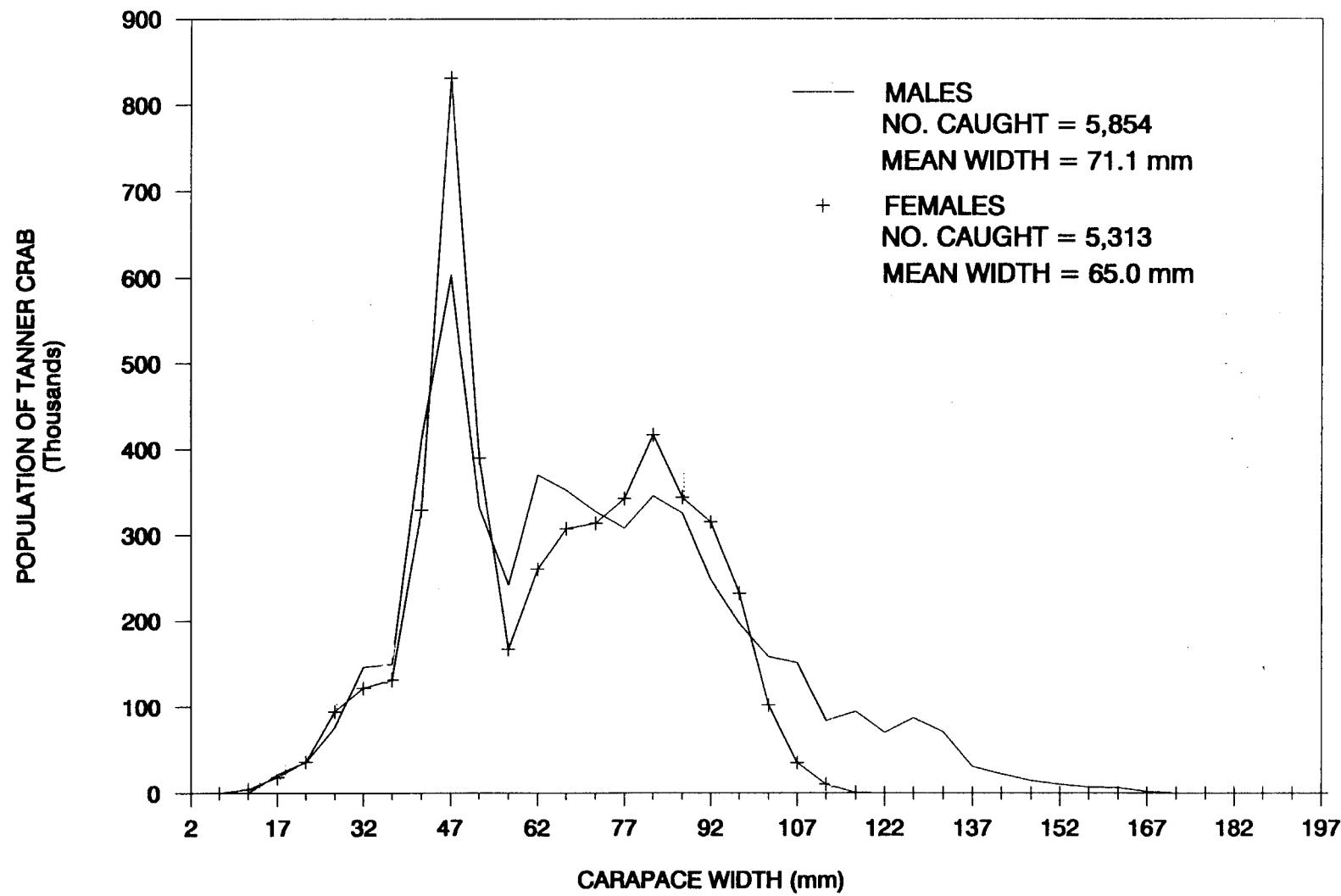
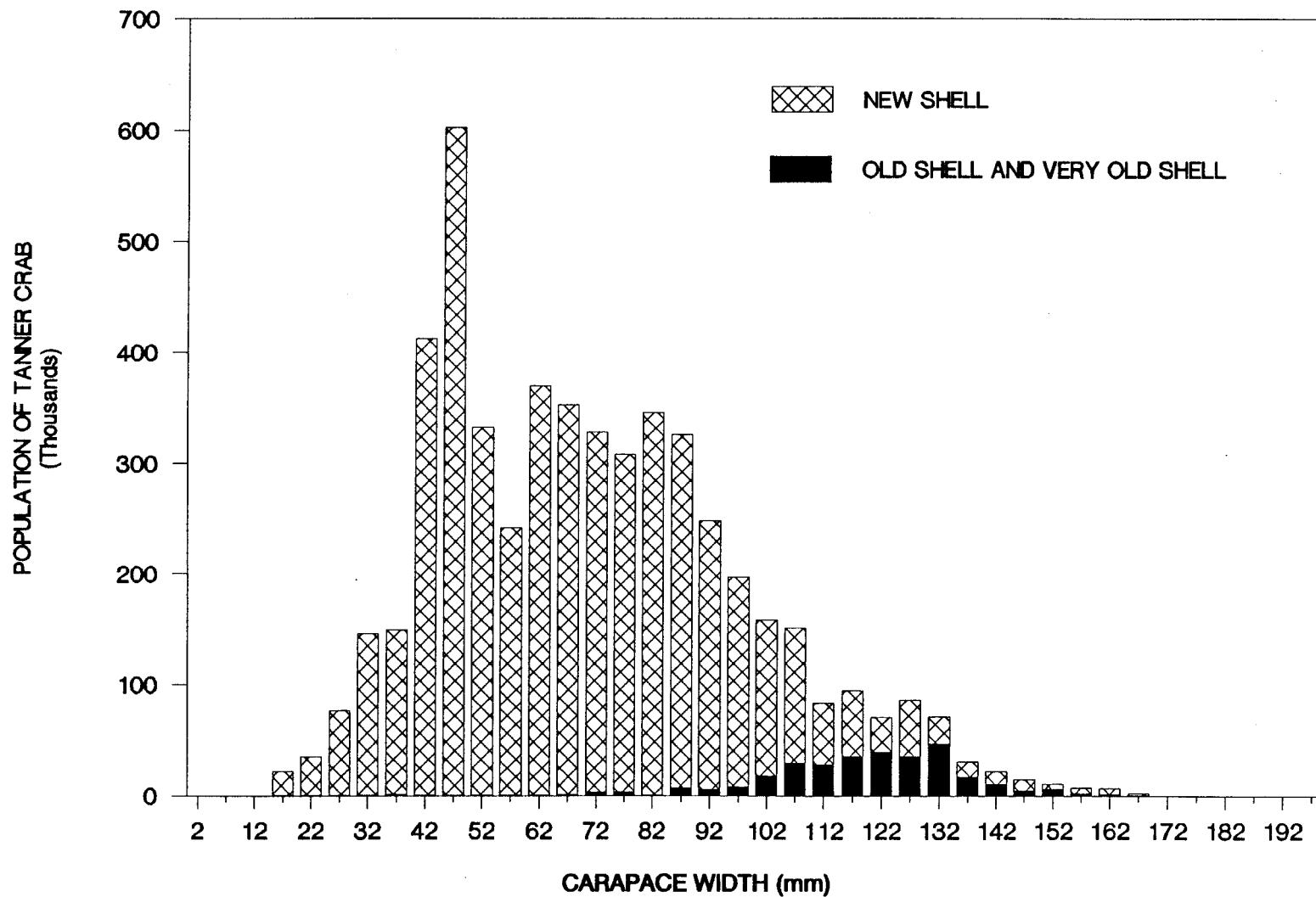


Figure 28. Carapace width frequency of male and female Tanner crab captured during the Eastern Aleutian trawl survey, 1990.



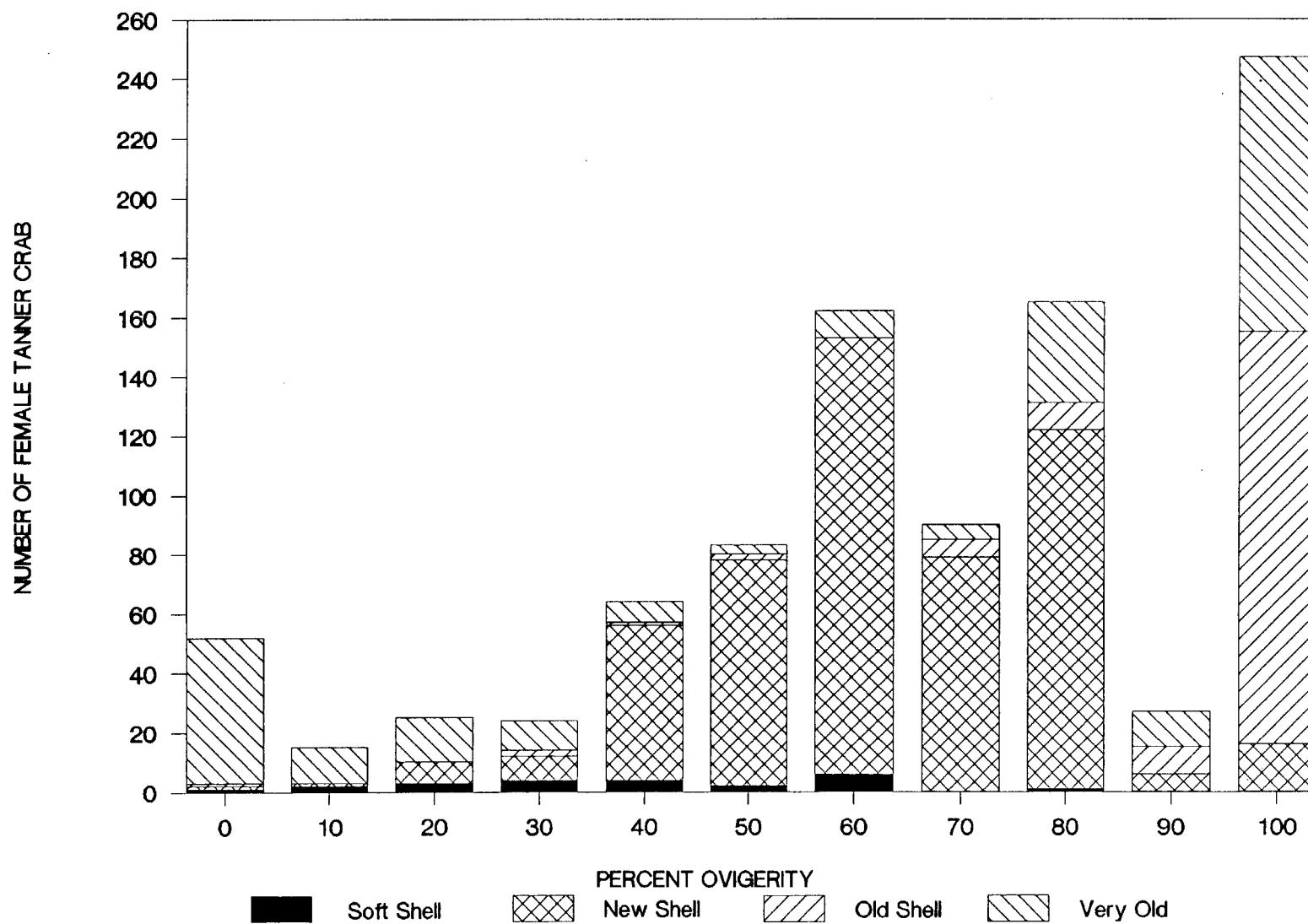


Figure 30. Percent ovigerty of mature female Tanner crab captured from the Eastern Aleutian District during the 1990 bottom trawl survey.

APPENDIX

Appendix A. Explanation of Terms and Acronyms:

The following definitions were developed for characterizing Tanner crab, *Chionoecetes bairdi*, examined in this report.

Newshell (NS)	Hard exoskeletal animal; the dorsal side of the carapace brownish-red; no apparent scratching on ventral side; epifauna absent or limited; and dactyli, pterygostomial and branchial spines sharp.
Oldshell (OS)	An apparent skip molt; carapace hard and brownish; thoracic sternum and ventral sides of legs with numerous scratches and abrasions; dactyli, pterygostomial and branchial spines worn; epifauna may be present.
Very Oldshell (VOS)	An obvious skip molt; carapace hard, dark brown to blackish; thoracic sternum and ventral side of legs with multiple scratches; underside of legs usually dark yellow-brown; dactyli, pterygostomial and branchial spines heavily worn; epifauna usually present.
Molting	All physiological events leading up to ecdysis and including ecdysis.
Skip Molt	A crab which has retained its exoskeleton (not molted) for more than 12 months.
Crab Measurements	All crab measurements in mm refer to carapace width (CW) inside spines unless otherwise noted.
Prerecruit IV	Male Tanner crab less than or equal to 69 mm in carapace width and four or more molts from attaining legal size. Note that this group includes prerecruit IV, V and VI and younger crabs but are referred to a prerecruit IV's herein.
Prerecruit III	Male Tanner crab 70-91 mm in carapace width and three molts from attaining legal size.
Prerecruit II	Male Tanner crab 92-114 mm in carapace width and two molts from attaining legal size.
Prerecruit I	Male Tanner crab 115-139 mm in carapace width and one molt from attaining legal size.

-Continued-

Appendix A. (page 2 of 3)

Recruit Legals	Newshell male Tanner crab 140-164 mm in carapace width, recruited to legal size in year of capture.
Postrecruit Legals	Male crab that have been legal size at least one year: defined as oldshells and very oldshells 140-164 mm and all males >164 mm in carapace width.
Total Legals	All male Tanner crab >139 mm in carapace width.
Females	Identified as adult or immature by visual observation of abdominal flap.

The following definitions were developed for characterizing king crab, *Paralithodes camtschaticus*, examined in this report.

Carapace Length	The straight line distance across the carapace from the posterior margin of the right eye orbit to the medial-posterior margin of the carapace.
Legal Size	Male crab seven inches (178 mm) or greater in width of shell, including the spines, measured as the straight line distance across the carapace at a right angle to a line midway between the eyes to the midpoint of the posterior portion of the carapace.
Juvenile Females	Nonovigerous females with carapace lengths of less than 116 mm.
Adult, Mature Females	Ovigerous and nonovigerous females with carapace lengths greater than 115 mm.
Adult, Mature Males	Male king crabs with a carapace lengths greater than 130 mm.
Newshell Males	Individuals that molted during the last molting season (generally January through April).
Oldshell Males	(Skipmolt) Individuals that failed to molt during last molting season.
Very Oldshell Males	(Double Skipmolt) Individuals that failed to molt during the last two or more molting seasons.
Prerecruit IV	Individuals estimated to be four or more years from legal size and less than 95 mm in length.

-Continued-

Appendix A. (page 3 of 3)

Prerecruit III	Individuals estimated to be three years from legal size and 95-112 mm in length.
Prerecruit II	Individuals estimated to be two years from legal size and 113-130 mm in length.
Prerecruit I	Individuals estimated to be one year from legal size which includes all sublegals greater than 130 mm in length.
Recruits	Newshell males which are legal size and are in their first year of availability to the fishery which includes crabs less than or equal to 164 mm in length.

Appendix B. Strata definitions used in stratified sampling model for population estimates of legal Tanner crab.

KODIAK DISTRICT (6,234.3 km²)

NORTHEAST SECTION (1,113.0 km²)

Inner Marmot substratum (111.7 km²): KZA, KZB, KZC, KZE, KZF, KZG, KZJ, KZK, KZO, KZR, KZS

Middle Marmot substratum (267.3 km²): MOEX, MOGX, MOLX, MONX, MOPX, MOXX

Outer Marmot substratum (277.5 km²): 255, 256, 257, 283, 284

Chiniak "Low" substratum (83.6 km²): CHA, CHB, CHE, CHG, CHJ, CHL, and the portions of CHF and CHK that are above the 50 fathom contour

Chiniak "High" substratum (14.0 km²): the portions of CHF and CHK that are below the 50 fathom contour

Chiniak Gully substratum (358.9 km²): 395, 420, 421, 442, 443, 444, 369x

EAST SIDE SECTION (992.7 km²)

Ugak Bay substratum (111.9 km²): UGA, UGB, UGC, UGD, UGE, UGF, UGG, UGH, UGI, UGJ, UGM

Kiliuda Bay substratum (108.6 km²): KLA, KLB, KLC, KLD, KLE, KLF, KLG, KLH, KLI, KLL

Horseshoe/Barnabas substratum (772.2 km²): 486, 510, 511, 534, 535, 559, 560, 561, 587, 588, 589, 619, 620, 621, 565, 533A, 533B, 558B

SOUTHEAST SECTION (1116.3 km²)

South Sitkalidik substratum (149.3 km²): THA, THB, THC, THD, THF, THG, THH, THI, THJ, THK, THL, THM, THN

Offshore Twoheaded substratum (319.5 km²): 585, 586, 614, 615, 617, 618, 651

Horse's Head substratum (462.5 km²): 688, 725, 726, 727, 728, 729, 759, 760, 761, 794

Towers substratum (185.0 km²): 858, 891, 892

SOUTHWEST SECTION (1417.8 km²)

Compass Rose substratum (1017.5 km²): 608X, 676X, 677X, 678X, 712X, 748X, 750X, 781X, 815X, 816X, 881X

Alitak Flats substratum (224.6 km²): 645, 646a, 646b, 646c, 646d, 682b, 683a, 683b, 683c, 683d, 684a, 684b, 684c, 684d

-Continued-

Appendix B. (p. 2 of 3)

Alitak Bay substratum (175.7 km²): ALA, ALB, ALC, ALD, ALF, ALG, ALH, ALI, ALJ, ALK, ALL, ALM, ALO, ALP, ALQ, ALR

WESTSIDE SECTION (402.4 km²)

Uyak Bay substratum (129.9 km²): UYEX, UYFX, UYHX, UYKX, UYMX, UYQX, UYSX

Uganik Bay substratum (118.4 km²): KUN, KUO, KUP, KUQ, KUR, KUS, KUT, KUU, KUV, KUW, KUX

Kupreanof-Viekoda substratum (123.0 km²): KUE, KUF, KUG, KUH, KUI, KUJ, KUK, KUL, KUM, KUY

West Afognak substratum (31.1 km²): MAA, PAA, RAA

NORTH MAINLAND SECTION (1192.1 km²)

2, 3, 31, 60, 61, 90, 91, 117, 118, 119, 120, 121, 144, 145, 146, 147, 171, 172, 173, 174, 198, 199, 200, 222, 223, 224

SOUTH PENINSULA DISTRICT (1793.0 km²)

SANAK ISLAND "SECTION" (210.5 km²)

113, 125, 126, 137, 138

MORZHOOVOI BAY "SECTION" (293.8 km²)

"Low" substratum (247.5 km²): 87A, 87B, 87C, 87D, 98C, MOB, MOC, MOD, MOF, MOG, MOH, MOJ, MOM, MON, MOP, MOR, MOS, MOU, MOV, MOW

"High" substratum (46.2 km²): MOI, MOK, MOL, MOO

COLD BAY/BELKOFSKI "SECTION" (199.8 km²)

BEA, BEB, BEC, BED, BEE, BEF, BEG, COC, COE, COF, COG, COH, COJ, COM, COO, COQ, 132A, 145B, 156A, 157A

PAVLOF BAY/VOLCANO "SECTION" (470.1 km²)

"Low" substratum (315.4 km²): 245, PAB, PAC, PAE, PAF, PAH, PAI, PAJ, PAL, PAM, PAN, PAP, PAQ, PAS, PAT, PAU, VOD, VOG, VOJ, VOL, VON, VOP, VOQ, PAOA, PAOB, PAWA, VOFA, VOFB, VOMA, VOMB

"High" substratum (154.7 km²): 228, PAV, VOA, VOB, VOC, VOE, VOH, VOI, PARA, PARB

BEAVER/BALBOA BAY/UNGA "SECTION" (213.9 km²)

278, 348, BAA, BAC, BAD, BAE, BAF, BVA, BVB, BVC, BVD, 311B, 311C, 312A, 329B, 329C

STEPOVAK BAY "SECTION" (255.3 km²)

387, 388, 389, 409, STA, STB, STD, STE, 368A

-Continued-

Appendix B. (p. 3 of 3)

WEST NAGAI "SECTION" (149.6 km²)

353, 371, 393, 332B, 373B

EASTERN ALEUTIAN DISTRICT (531.7 km²)

AKUTAN BAY "SECTION" (65.1 km²)

AKA, AKC, AKD, AKG, AKL

BEAVER INLET "SECTION" (106.2 km²)

BIB, BID, BIG, BIK, BIN, BIT, BIU

UNALASKA/KALETKA BAY "SECTION" (87.3 km²)

KAA, UNC, UND, UNE, UNF, UNG, UNI, UNJ

MAKUSHIN BAY "SECTION" (99.1 km²)

MKB, MKC, MKE, MKF, MKJ, MKK, MKN, MKP

USOF BAY "SECTION" (47.5 km²)

USA, USB, USC, USF, USG

AKUN BAY "SECTION" (37.0 km²)

ANA, AND, ANE

PUMICESTONE BAY "SECTION" (10.7 km²)

PUA, PUB

CAPE IDAK "SECTION" (34.8 km²)

IDG, IDH, IDK

INANUDAK BAY "SECTION" (43.8 km²)

INA, INB, INF, INP

CHIGNIK DISTRICT (677.6 km²)

IVANOF BAY "SECTION" (232.2 km²)

4000, 4007, 4008, 4009, 4024, 4036, 4915

MITROFANIA "SECTION" (191.1 km²)

4035, 4048, 4049, 4063, 4064, 4065

CHIGNIK BAY "SECTION" (176.3 km²)

4256, 4260, 4264, 4265, 4266, 4267, 4270, 4271, 4272, 4274, 4277, 4278, 4282, 4286, 4287, 4312, 4964

KUJULIAK BAY "SECTION" (78.1 km²)

4290, 4296, 4298, 4301, 4302, 4304, 4308

Appendix C.

Fishing log and catch data from individual bottom trawls, Westward Region, 1990. Temperature sensor failed after haul 107. Performance other than 1 indicates unsatisfactory, unusable tow.

Haul	1	2	3	4	5	6	7	8	9	10
Location	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD
Month/Day/Year	06/14/90	06/14/90	06/14/90	06/15/90	06/15/90	06/15/90	06/15/90	06/15/90	06/15/90	06/16/90
Longitude Start	152 27.9	152 18.9	152 27.4	152 23.7	152 19.8	152 18.5	150 0.0	152 16.0	152 36.8	152 41.4
Latitude Start	57 40.0	57 41.7	57 35.8	57 44.5	57 43.1	57 43.1	57 0.0	57 43.1	57 56.3	57 54.8
Heading, Degrees	56	214	34	185	89	285	35	77	288	206
Average Depth (m)	22	143	38	62	135	141	93	174	139	104
Duration (min)	21	32	27	27	27	27	26	26	28	26
Distance Fished (km)	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	22	1	1	1	1	1
Tow Catch (kg)	1206.0	1499.6	1521.8	1712.8	0.0	1951.8	2227.6	1296.4	1732.7	1255.6
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	0.6	35.4	50.8	164.7	0.0	87.5	51.7	0.0	712.6	167.4
Pacific Cod	189.9	0.0	36.3	32.7	0.0	34.0	19.5	3.6	27.2	1.8
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Sablefish	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	23.1
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	14.7	19.1	12.7	224.5	0.0	0.0	113.9	0.0	0.0	0.0
Other Roundfish	14.2	0.0	3.2	8.2	0.0	0.0	13.2	0.0	6.8	2.7
TOTAL ROUNDFISH	219.4	54.4	106.1	430.0	0.0	123.8	198.2	3.6	746.6	196.0
Arrowtooth Flndr	0.0	296.7	102.1	127.0	0.0	428.2	80.7	562.0	564.7	308.9
Flathead Sole	13.0	146.5	118.8	74.8	0.0	778.8	1196.1	624.6	242.2	475.8
Rock Sole	321.5	0.9	3.2	149.2	0.0	0.0	0.0	0.0	0.0	0.0
Rex Sole	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	0.6	41.3	3.2	3.2	0.0	54.9	29.5	29.5	85.3	49.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	49.9	0.0	0.0	0.0
Yellowfin Sole	386.1	0.0	834.2	523.9	0.0	0.0	404.2	0.0	0.0	0.0
Other Flatfish	145.2	0.0	147.0	74.8	0.0	0.0	0.0	0.0	0.0	128.8
TOTAL FLATFISH	866.4	485.3	1208.4	954.4	0.0	1261.9	1760.4	1216.1	892.2	962.5
Skates	0.0	0.0	8.2	0.0	0.0	39.0	169.6	5.4	9.5	50.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.6	958.0	25.4	2.3	0.0	511.2	6.8	2.7	39.9	8.2
Red King Crab	18.1	0.0	13.6	0.0	0.0	0.0	92.5	0.0	0.0	0.0
Dungeness Crab	73.7	0.9	35.4	5.0	0.0	0.0	0.0	0.0	0.0	9.1
Shrimp spp.	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
Scallop	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Inverts	27.8	0.5	124.7	321.1	0.0	15.9	0.0	67.1	44.5	29.0
TOTAL INVERTS	120.2	959.8	199.1	328.4	0.0	527.1	99.3	71.2	84.4	46.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85 km)	1206.0	1499.6	1521.8	1712.8	0.0	1951.8	2227.6	1296.4	1732.7	1255.6

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Appendix C. (page 2 of 43)

Haul	11	12	13	14	15	16	17	18	19	20
Location	N.E.KOD									
Month/Day/Year	06/16/90	06/16/90	06/16/90	06/17/90	06/17/90	06/17/90	06/17/90	06/17/90	06/17/90	06/17/90
Longitude Start	152 46.5	152 52.3	152 53.9	152 42.9	152 39.1	152 34.2	152 34.4	152 30.3	152 35.8	152 35.8
Latitude Start	57 50.8	57 48.7	57 45.1	57 55.5	57 57.5	57 58.2	58 0.0	58 2.2	58 6.1	58 7.3
Heading, Degrees	35	187	11	24	4	0	8	214	355	2
Average Depth (m)	55	55	40	128	132	183	194	201	117	91
Duration (min)	27	28	27	22	28	28	26	26	28	26
Distance Fished (km)	1.0	1.0	1.0	0.8	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	2113.3	1112.2	2238.5	2611.6	1887.9	1349.5	692.2	606.9	281.7	417.8
KILOGRAMS / 1.85 KILOMETER										
Pollock	28.6	87.1	0.0	1179.9	1444.7	0.0	0.0	0.0	122.9	59.0
Pacific Cod	8.6	15.9	35.8	48.8	11.3	27.2	10.4	32.2	58.5	65.8
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	4.5	3.6	4.5	0.0	0.0
Thornyhead Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.9	0.0	0.0	0.0	2.7	2.3	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	114.3	44.5	77.1	150.3	31.3	0.0	0.0	1.8	4.5	9.5
Other Roundfish	1.4	0.0	0.0	4.5	0.0	1.8	0.9	0.9	0.9	3.2
TOTAL ROUND FISH	153.8	147.4	112.9	1383.5	1490.1	35.8	15.0	39.5	186.9	137.4
Arrowtooth Flndr	128.8	0.0	0.0	857.9	117.9	1014.7	435.0	296.2	10.0	0.0
Flathead Sole	1002.0	173.7	230.9	192.8	156.9	179.2	196.4	108.4	28.1	225.4
Rock Sole	18.1	0.0	230.9	0.0	15.9	0.0	0.0	0.0	0.0	0.0
Rex Sole	0.0	0.0	0.0	59.0	15.9	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	78.5	15.0	16.3	32.9	6.8	54.0	0.0	20.9	0.0	0.0
Starry Flndr	0.0	52.2	277.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	515.3	87.1	1278.2	21.5	0.0	0.0	0.0	0.0	0.0	2.3
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	1742.7	328.0	2033.5	1164.0	313.4	1247.8	631.4	425.5	38.1	227.7
Skates	155.6	0.0	0.0	21.0	12.2	20.0	15.4	6.8	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Other Elasmobrnh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.9	576.1	38.6	3.4	0.5	44.9	29.5	133.4	55.8	48.5
Red King Crab	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	6.8	0.0	30.4	0.6	0.0	0.0	0.0	0.0	0.0	0.5
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.8	0.9	3.2
Scallop	0.5	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Other Inverts	53.1	60.8	15.4	36.9	70.3	0.0	0.0	0.0	0.0	0.5
TOTAL INVERTS	61.2	636.9	92.1	43.1	70.8	45.8	30.4	135.2	56.7	52.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	2113.3	1112.2	2238.5	2611.6	1887.9	1349.5	692.2	606.9	281.7	417.8

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Appendix C. (page 3 of 43)

Haul	21	22	23	24	25	26	27	28	29	30
Location	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD	N.E.KOD
Month/Day/Year	06/17/90	06/18/90	06/18/90	06/18/90	06/18/90	06/18/90	06/18/90	06/18/90	06/19/90	06/19/90
Longitude Start	152 17.5	152 14.9	152 10.4	152 4.5	151 51.4	151 41.0	151 47.9	151 56.4	152 11.5	152 22.5
Latitude Start	58 4.0	58 8.7	58 4.2	58 4.3	58 4.1	58 5.1	58 0.4	57 59.5	57 56.0	57 56.9
Heading, Degrees	58	139	153	125	83	53	232	257	17	33
Average Depth (m)	172	179	165	137	119	139	139	170	192	132
Duration (min)	27	25	27	28	26	27	27	26	26	24
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	418.7	787.4	688.6	1462.9	2451.7	676.3	1501.0	483.5	311.2	531.7
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	3.6	3.2	118.8	507.1	1710.1	306.2	748.0	114.3	38.1	204.1
Pacific Cod	18.6	13.2	31.8	19.5	29.5	10.0	44.0	24.5	14.1	54.9
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	3.2	0.0	4.1	0.0	0.0	0.0	0.0	5.0	1.4	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.5	0.0
Sablefish	0.0	0.0	2.3	0.0	3.6	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6
Other Roundfish	0.9	18.1	14.1	12.7	0.0	3.2	0.0	0.0	6.4	6.6
TOTAL ROUNDFISH	26.3	34.5	171.0	539.3	1743.2	319.3	792.9	143.8	60.3	278.2
Arrowtooth Flndr	135.2	212.3	361.5	479.5	535.2	128.8	415.5	172.8	136.5	114.9
Flathead Sole	113.4	461.8	90.3	276.7	18.6	44.5	103.9	88.0	44.5	77.6
Rock Sole	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0
Rex Sole	6.4	0.0	0.0	20.4	104.3	70.8	20.9	0.0	0.0	1.5
Dover Sole	23.6	0.0	0.0	0.0	15.0	66.7	72.6	0.0	18.6	0.0
Pac Halibut	38.1	29.9	7.3	36.3	9.1	0.0	1.8	14.5	0.0	0.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	316.6	704.0	459.0	812.8	682.2	316.2	614.6	275.3	199.6	194.0
Skates	40.8	13.6	26.3	43.1	26.3	6.8	24.0	48.5	19.5	39.3
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	22.7	15.4	9.5	11.8	0.0	0.5	2.3	1.4	4.1	2.0
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	2.7	6.8	1.4	0.9	0.0	0.0	0.0	6.4	5.4	3.0
Scallop	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.0	0.0
Other Inverts	9.5	13.2	21.3	54.9	0.0	31.8	67.1	7.7	22.2	15.1
TOTAL INVERTS	34.9	35.4	32.2	67.6	0.0	32.7	69.4	15.9	31.8	20.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	418.7	787.4	688.6	1462.9	2451.7	676.3	1501.0	483.5	311.2	531.7

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Appendix C. (page 4 of 43)

Haul	31	32	33	34	35	36	37	38	39	40
Location	N.E.KOD	E.KOD	E.KOD							
Month/Day/Year	06/19/90	06/19/90	06/21/90	06/21/90	06/21/90	06/21/90	06/21/90	06/21/90	06/22/90	06/22/90
Longitude Start	152 14.0	150 43.5	151 57.1	151 48.8	151 41.8	151 39.4	151 45.9	151 53.4	152 38.2	152 33.5
Latitude Start	57 41.5	57 44.5	57 41.2	57 35.8	57 33.8	57 31.5	57 30.8	57 29.9	57 24.9	57 23.6
Heading, Degrees	77	185	120	143	135	140	292	210	115	174
Average Depth (m)	101	108	110	128	121	166	128	97	95	82
Duration (min)	26	27	30	27	27	27	28	26	27	27
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	954.4	1735.0	635.5	1047.8	641.8	449.5	421.8	2048.0	1351.3	2331.0
KILOGRAMS / 1.85 KILOMETER										
Pollock	401.4	1069.6	2.7	15.0	18.1	3.2	3.2	63.5	36.3	25.9
Pacific Cod	11.3	37.6	22.7	34.0	50.8	7.3	0.0	89.4	11.8	14.1
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	4.1	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.5	0.0	0.0	2.7	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	32.2	0.0	0.0	0.0	0.0	0.0	0.0	10.4	3.6	0.0
Other Roundfish	0.0	2.3	0.0	0.0	0.5	0.0	0.5	0.0	5.9	20.0
TOTAL ROUND FISH	445.0	1109.5	25.9	49.0	69.4	14.1	4.5	163.3	61.7	59.9
Arrowtooth Flndr	73.9	279.0	159.2	457.7	104.3	66.2	41.3	140.2	343.4	100.2
Flathead Sole	203.7	93.0	22.7	78.5	31.3	90.7	251.3	56.2	633.2	473.1
Rock Sole	40.4	11.8	81.6	0.0	0.0	0.0	0.0	34.9	0.0	28.6
Rex Sole	1.8	87.1	1.4	176.4	104.3	98.0	15.9	0.0	0.0	24.9
Dover Sole	0.0	29.0	0.0	73.5	80.3	24.5	11.3	0.0	0.0	0.0
Pac Halibut	11.3	2.7	42.6	3.2	6.8	14.1	17.7	38.1	21.3	76.2
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	573.8
Yellowfin Sole	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	171.9
Other Flatfish	0.0	5.9	136.5	45.8	24.5	1.4	9.1	1570.8	205.9	602.4
TOTAL FLATFISH	358.8	508.5	444.1	835.1	351.5	294.8	346.5	1840.2	1203.8	2051.2
Skates	21.8	15.0	19.5	39.5	36.3	82.1	55.3	39.9	71.2	87.5
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobr.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	2.3	0.5	0.5	0.5	1.8	0.5	0.9	0.9	8.2	0.5
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.4	2.7
Scallop	0.0	8.6	0.0	0.9	2.7	0.9	0.5	0.9	0.0	0.0
Other Inverts	126.6	93.0	145.2	122.9	180.1	57.2	14.1	2.7	5.0	129.3
TOTAL INVERTS	128.8	102.1	146.1	124.3	184.6	58.5	15.4	4.5	14.5	132.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	954.4	1735.0	635.5	1047.8	641.8	449.5	421.8	2048.0	1351.3	2331.0

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Haul	41	42	43	44	45	46	47	48	49	50
Location	E.KOD									
Month/Day/Year	06/22/90	06/22/90	06/22/90	06/22/90	06/22/90	06/22/90	06/22/90	06/23/90	06/23/90	06/23/90
Longitude Start	152 32.5	152 32.1	152 31.6	152 27.6	152 28.6	152 28.6	152 36.5	152 52.2	152 45.2	152 43.2
Latitude Start	57 21.6	57 21.7	57 18.9	57 19.9	57 22.5	57 22.5	57 25.1	57 29.2	57 27.4	57 27.0
Heading, Degrees	166	173	70	20	84	281	306	121	155	129
Average Depth (m)	97	91	102	82	51	37	97	73	86	90
Duration (min)	26	26	27	26	27	26	28	26	27	22
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8
Performance	22	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	0.0	1285.5	1119.0	993.4	1941.4	1381.7	1432.9	2141.0	1018.3	1343.2
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	0.0	0.9	0.9	39.9	276.2	0.0	35.8	103.4	87.5	40.3
Pacific Cod	0.0	2.7	13.2	9.5	94.8	391.0	19.5	115.7	78.5	34.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	5.4	0.0	0.0	0.0	0.9	0.0	0.0	1.1
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.0	11.3	0.0	5.9	0.0	56.7	0.0	0.5	41.4
Other Roundfish	0.0	27.2	15.0	16.3	9.1	0.0	0.0	7.3	9.1	5.7
TOTAL ROUNDFISH	0.0	30.8	45.8	65.8	386.0	391.0	112.9	226.3	175.5	122.5
Arrowtooth Flndr	0.0	360.2	257.2	223.2	59.9	5.0	521.6	13.6	46.7	258.6
Flathead Sole	0.0	285.3	124.7	68.9	59.9	0.5	597.4	297.1	575.6	624.8
Rock Sole	0.0	0.0	5.9	74.4	684.0	76.2	0.0	35.4	0.0	0.0
Rex Sole	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	0.0	23.6	15.0	42.6	78.0	490.3	0.0	0.0	45.8	0.0
Starry Flndr	0.0	0.0	0.0	95.7	0.0	24.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	106.6	48.1	0.0	0.0	476.7	31.3	86.2
Other Flatfish	0.0	339.7	70.3	212.7	198.2	5.0	66.2	0.0	83.0	107.7
TOTAL FLATEFISH	0.0	1008.8	473.1	831.0	1128.1	601.0	1185.2	822.8	782.5	1077.3
Skates	0.0	161.5	26.3	93.0	47.2	9.1	103.0	0.0	52.2	134.9
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.0	0.9	478.1	0.9	0.0	0.0	3.2	1063.7	4.1	5.7
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0
Dungeness Crab	0.0	0.9	0.0	0.9	1.8	0.0	0.0	13.6	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.7
Scallop	0.0	0.9	0.0	0.0	3.2	0.0	0.0	0.0	0.9	0.0
Other Inverts	0.0	81.6	95.7	1.8	375.1	380.6	28.6	0.0	2.7	1.1
TOTAL INVERTS	0.0	84.4	573.8	3.6	380.1	380.6	31.8	1091.8	8.2	8.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	0.0	1285.5	1119.0	993.4	1941.4	1381.7	1432.9	2141.0	1018.3	1343.2

-Continued-

Appendix C. (page 6 of 43)

Haul	51	52	53	54	55	56	57	58	59	60
Location	E.KOD									
Month/Day/Year	06/23/90	06/23/90	06/23/90	06/23/90	06/24/90	06/24/90	06/24/90	06/24/90	06/24/90	06/24/90
Longitude Start	152 28.8	152 30.9	152 25.6	152 43.6	152 40.9	152 30.1	152 25.9	152 25.5	152 22.3	152 23.0
Latitude Start	57 17.8	57 16.8	57 13.1	57 11.5	57 9.6	57 6.7	57 8.7	57 3.2	56 59.0	56 53.4
Heading, Degrees	8	0	355	290	140	320	180	152	160	180
Average Depth (m)	99	104	73	137	139	113	135	148	137	152
Duration (min)	26	29	26	26	25	24	26	27	27	29
Distance Fished (km)	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	608.7	585.6	1689.6	609.6	788.8	2804.7	1059.1	1208.4	658.2	680.4
-----KILOGRAMS/ 1.85 KILOMETER-----										
Pollock	0.9	10.4	163.3	11.3	4.5	801.4	77.1	20.4	6.8	87.1
Pacific Cod	24.9	10.9	69.4	9.1	7.3	166.8	54.4	24.5	21.3	0.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Sablefish	0.0	0.0	0.0	0.9	7.3	2.5	0.9	0.9	6.4	2.3
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.0	0.0	0.0	26.8	36.8	0.0	0.0	0.0	0.5
Other Roundfish	4.5	16.8	0.0	13.6	0.0	0.0	0.0	0.0	0.0	0.5
TOTAL ROUND FISH	30.4	39.0	232.7	34.9	45.8	1007.5	132.5	45.8	35.4	91.2
Arrowtooth Flndr	118.8	64.4	747.1	147.4	417.8	1335.1	441.8	762.0	121.6	204.6
Flathead Sole	71.7	55.8	57.2	124.7	87.5	166.8	28.6	149.7	44.0	47.2
Rock Sole	2.3	0.0	334.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rex Sole	0.0	0.0	0.0	48.1	103.4	83.7	185.5	39.0	155.1	94.3
Dover Sole	0.0	0.0	0.0	86.2	82.6	0.0	142.4	52.2	175.5	179.2
Pac Halibut	3.6	0.0	185.5	18.6	4.5	113.4	0.0	21.3	24.5	48.5
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	11.3	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	18.1	0.0	80.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	225.9	125.6	1404.3	425.0	695.8	1699.0	798.3	1024.2	520.7	573.8
Skates	156.5	33.6	25.9	44.0	20.4	0.0	0.9	37.6	2.3	5.9
Spiny Dogfish	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrhn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	99.8	292.1	1.8	19.5	10.0	2.0	98.9	74.8	85.7	3.2
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	0.0	2.7	0.0	0.9	0.5	0.0	0.0	0.0	0.0
Other Inverts	96.2	95.3	17.7	86.2	15.9	95.8	28.6	25.9	14.1	6.4
TOTAL INVERTS	196.0	387.4	22.2	105.7	26.8	98.3	127.5	100.7	99.8	9.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	608.7	585.6	1689.6	609.6	788.8	2804.7	1059.1	1208.4	658.2	680.4

-Continued-

Appendix C. (page 7 of 43)

Haul	61	62	63	64	65	66	67	68	69	70
Location	E.KOD	S.E.KOD	S.E.KOD							
Month/Day/Year	06/24/90	06/24/90	06/25/90	06/25/90	06/25/90	06/25/90	06/25/90	06/25/90	06/25/90	06/25/90
Longitude Start	152 22.0	152 32.1	152 45.7	152 43.3	152 35.2	152 34.3	152 39.7	152 43.2	152 50.7	152 53.8
Latitude Start	56 49.4	56 52.5	57 9.4	57 4.7	57 1.8	56 58.9	56 57.7	56 54.3	56 54.3	56 57.2
Heading, Degrees	180	348	142	180	354	160	250	180	110	170
Average Depth (m)	163	157	146	152	146	155	146	135	115	133
Duration (min)	29	28	26	26	28	28	27	27	26	26
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	279.4	650.9	489.9	746.2	859.1	1110.9	1367.6	612.4	1890.1	850.5
-----KILOGRAMS/ 1.85 KILOMETER-----										
Pollock	6.4	2.3	3.6	8.2	2.3	0.0	0.0	7.3	1023.3	37.6
Pacific Cod	0.0	0.0	2.7	10.0	2.7	0.0	0.0	10.0	45.8	22.2
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.5	12.2	0.9	0.0	0.0	5.9	10.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0
Sablefish	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.5
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.9	0.0	15.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Other Roundfish	0.0	0.0	40.8	14.5	0.0	0.0	0.0	0.0	1.4	0.0
TOTAL ROUND FISH	7.7	14.5	64.0	39.0	5.0	6.8	10.0	17.2	1084.1	60.3
Arrowtooth Flndr	189.6	449.1	196.0	339.7	727.1	963.4	1023.3	287.1	402.3	54.0
Flathead Sole	20.9	27.7	56.7	123.4	47.6	67.6	83.0	67.6	57.6	351.5
Rock Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8
Rex Sole	10.4	0.0	0.0	15.0	5.9	0.0	33.1	87.5	68.9	151.5
Dover Sole	4.1	51.3	15.9	37.2	0.0	0.0	41.7	11.3	218.6	113.4
Pac Halibut	12.2	0.0	19.5	52.6	3.2	0.0	63.5	44.9	5.0	0.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	16.3
TOTAL FLATFISH	237.2	528.0	290.3	567.9	783.8	1031.0	1244.7	498.5	752.5	708.5
Skates	0.9	60.8	12.2	42.2	49.4	38.6	36.7	19.1	25.9	10.9
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	6.8	23.6	65.8	42.2	8.2	27.2	40.8	68.0	20.4	34.9
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.9	0.0	0.9	0.5	1.4	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	0.0	0.0	1.8	0.0	0.0	0.5	2.3	2.3	0.0
Other Inverts	25.9	24.0	56.7	52.6	12.2	5.9	34.9	7.3	5.0	35.8
TOTAL INVERTS	33.6	47.6	123.4	97.1	20.9	34.5	76.2	77.6	27.7	70.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	279.4	650.9	489.9	746.2	859.1	1110.9	1367.6	612.4	1890.1	850.5

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Appendix C. (page 8 of 43)

Haul	71	72	73	74	75	76	77	78	79	80
Location	E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	E.KOD	E.KOD	E.KOD	E.KOD	E.KOD	E.KOD
Month/Day/Year	06/26/90	06/26/90	06/26/90	06/26/90	06/27/90	06/27/90	06/27/90	06/27/90	06/27/90	06/27/90
Longitude Start	152 48.5	152 57.1	152 59.7	153 12.6	152 58.7	153 2.5	152 55.7	152 51.2	152 44.1	152 53.2
Latitude Start	57 3.4	56 57.2	56 55.0	56 48.6	57 17.7	57 17.9	57 16.6	57 13.5	57 15.7	57 12.7
Heading, Degrees	165	11	61	8	190	257	148	130	183	255
Average Depth (m)	113	126	132	176	80	95	93	119	22	119
Duration (min)	26	28	29	28	26	27	26	27	24	26
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	2388.6	934.9	660.4	401.4	1959.5	318.4	1062.8	2184.5	1174.8	1782.6
KILOGRAMS / 1.85 KILOMETER										
Pollock	605.6	139.3	115.7	29.5	40.8	44.9	88.9	46.7	0.0	112.5
Pacific Cod	207.7	5.4	2.7	38.6	36.3	42.6	37.2	19.5	119.3	51.3
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfsh	0.0	0.0	3.6	3.6	0.0	0.0	0.0	0.0	0.0	1.8
Thornyhead Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	1.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	1.8	2.7	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	122.5	3.6	0.0	0.0	2.7	10.9	0.0	0.0	0.0	70.8
Other Roundfish	61.2	6.8	0.0	1.8	6.4	0.5	4.5	21.8	0.0	12.2
TOTAL ROUND FISH	998.8	155.1	122.9	73.5	86.2	100.7	133.4	88.0	119.3	248.6
Arrowtooth Flndr	1110.4	208.2	218.6	105.7	237.7	19.5	156.5	1252.4	14.5	655.0
Flathead Sole	29.0	208.2	130.6	109.8	1224.7	147.0	401.9	483.5	0.0	425.0
Rock Sole	61.2	0.0	0.0	0.0	0.0	0.9	0.0	0.0	249.9	10.9
Rex Sole	29.0	161.9	42.2	4.5	0.0	0.0	1.8	0.0	0.0	0.0
Dover Sole	21.8	92.5	77.6	0.0	0.0	0.0	0.0	62.1	0.0	62.1
Pac Halibut	22.2	0.0	2.3	1.4	41.7	0.0	0.0	16.8	17.7	1.4
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	28.1	0.0	571.5	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	49.0	44.9	145.2	0.0	0.0	0.0
Other Flatfish	0.0	0.0	0.0	0.0	210.0	1.4	4.1	16.3	35.8	0.0
TOTAL FLATFISH	1273.7	670.9	471.3	221.4	1763.1	213.6	737.5	1831.2	889.5	1154.4
Skates	5.9	16.8	0.0	2.7	108.9	0.0	59.0	88.0	0.0	65.8
Spiny Dogfish	1.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrnh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.5	4.5	28.6	2.7	0.5	3.6	128.4	129.7	0.5	212.7
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	1.4	0.0
Shrimp spp.	0.0	0.0	0.0	0.5	0.0	0.0	0.9	0.0	0.0	1.8
Scallop	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Inverts	108.4	83.0	37.6	100.7	0.0	0.5	3.6	47.6	164.2	99.3
TOTAL INVERTS	108.9	87.5	66.2	103.9	1.4	4.1	132.9	177.4	166.0	313.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	2388.6	934.9	660.4	401.4	1959.5	318.4	1062.8	2184.5	1174.8	1782.6

-Continued-

Appendix C. (page 9 of 43)

Haul	81	82	83	84	85	86	87	88	89	90
Location	E.KOD	E.KOD	E.KOD	S.E.KOD						
Month/Day/Year	06/27/90	06/27/90	06/27/90	06/28/90	06/28/90	06/28/90	06/28/90	06/28/90	06/28/90	06/28/90
Longitude Start	152 58.0	153 2.6	153 6.9	153 19.6	153 20.9	153 23.4	153 25.6	153 29.3	153 33.9	153 34.8
Latitude Start	57 11.7	57 11.0	57 10.1	57 9.4	57 8.3	57 6.3	57 4.1	57 2.0	57 2.7	57 0.3
Heading, Degrees	248	263	228	185	212	36	209	193	116	68
Average Depth (m)	117	123	113	106	119	121	115	101	93	73
Duration (min)	28	27	29	22	27	27	26	26	29	27
Distance Fished (km)	1.0	1.0	1.0	0.8	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1519.6	2426.3	3261.4	2106.4	1647.0	2112.4	1118.6	1419.3	1190.2	1152.1
KILOGRAMS/ 1.85 KILOMETER										
Pollock	46.3	7.7	53.5	102.6	44.9	19.1	59.4	119.7	286.7	254.0
Pacific Cod	13.6	24.0	24.5	17.0	47.6	42.2	20.4	27.7	30.8	7.7
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	4.1	2.3	3.2	0.0	0.9	2.3	1.8	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Herring	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.0	0.0	43.7	0.0	30.8	61.2	109.3	0.0	92.5
Other Roundfish	31.8	15.0	36.7	0.0	16.3	20.9	21.8	4.5	9.1	5.9
TOTAL ROUND FISH	95.7	49.0	117.9	163.9	109.8	115.2	164.7	261.7	326.6	360.2
Arrowtooth Flndr	270.8	1212.0	549.8	886.8	726.2	1058.7	110.7	465.4	218.2	69.4
Flathead Sole	875.9	956.2	2473.0	874.3	714.9	779.3	743.4	529.3	367.4	400.5
Rock Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.1
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	14.5	9.5	0.0	0.0	0.0
Pac Halibut	0.0	62.6	60.3	3.4	0.0	13.2	2.3	4.1	0.5	24.5
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	10.2	0.0	0.0	47.6	100.2	0.0	123.4
Other Flatfish	55.8	0.0	0.0	12.5	0.0	0.0	21.3	0.0	0.0	0.0
TOTAL FLATFISH	1202.5	2230.8	3083.1	1787.2	1441.1	1865.6	937.1	1101.3	586.0	694.9
Skates	38.1	109.8	57.6	5.1	0.0	13.2	0.0	0.0	0.0	45.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrnh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	179.2	2.7	2.7	145.2	91.2	115.7	13.6	18.1	259.0	35.4
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
Dungeness Crab	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	1.4	0.9	0.0	0.0	0.0
Scallop	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.5	4.5
Other Inverts	4.1	34.0	0.0	2.3	5.0	1.4	2.3	38.1	18.1	4.5
TOTAL INVERTS	183.3	36.7	2.7	150.3	96.2	118.4	16.8	56.2	277.6	51.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1519.6	2426.3	3261.4	2106.4	1647.0	2112.4	1118.6	1419.3	1190.2	1152.1

-Continued-

Appendix C. (page 10 of 43)

Haul	91	92	93	94	95	96	97	98	99	100
Location	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD
Month/Day/Year	06/28/90	06/28/90	06/29/90	06/29/90	06/29/90	06/29/90	06/29/90	06/29/90	06/29/90	06/29/90
Longitude Start	153 27.8	153 21.4	153 42.3	153 36.3	153 29.7	153 28.2	153 27.0	153 23.5	153 9.9	153 17.6
Latitude Start	56 59.8	57 2.7	56 52.0	56 53.7	56 55.2	56 57.0	56 53.7	56 53.4	56 38.7	56 38.2
Heading, Degrees	55	237	63	75	5	0	176	180	180	0
Average Depth (m)	119	44	51	88	132	132	135	143	148	146
Duration (min)	28	16	29	28	26	27	28	28	26	26
Distance Fished (km)	1.0	0.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1775.4	912.5	1643.8	1028.8	626.4	1408.0	580.6	882.2	557.0	619.6
KILOGRAMS / 1.85 KILOMETER										
Pollack	264.0	0.0	34.0	127.5	29.5	393.7	127.5	114.3	15.9	78.9
Pacific Cod	8.6	68.0	36.3	55.8	20.9	31.8	40.4	63.5	1.4	19.1
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	2.3	0.0	0.0	0.0	6.8	12.7	29.5	5.0	46.7	9.1
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
Sculpins	83.9	63.5	54.9	0.0	0.0	0.0	2.3	25.9	0.5	0.0
Other Roundfish	96.6	0.8	4.1	10.9	5.0	12.2	11.8	0.5	0.5	0.5
TOTAL ROUNDFISH	455.4	132.3	129.3	196.4	62.1	452.2	211.4	209.1	64.9	107.5
Arrowtooth Flndr	359.7	76.4	104.8	50.8	340.7	346.1	247.7	181.9	353.4	295.3
Flathead Sole	563.8	139.1	188.7	222.7	108.9	461.3	68.5	269.9	8.2	177.4
Rock Sole	0.0	25.7	34.0	69.9	8.2	31.3	0.0	14.1	0.0	0.0
Rex Sole	0.0	0.0	0.0	31.8	0.0	0.9	0.0	31.3	5.9	0.0
Dover Sole	0.0	0.0	0.0	31.8	0.0	0.0	7.3	14.1	0.0	0.0
Pac Halibut	0.0	14.4	121.1	36.7	16.8	43.5	0.0	63.5	113.4	10.9
Starry Flndr	0.0	0.0	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	119.7	323.6	283.5	127.5	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	228.2	117.2	346.5	100.7	1.8	10.4	3.6	0.0	0.0	0.0
TOTAL FLATFISH	1271.4	696.3	1141.7	671.8	476.3	893.6	327.0	574.7	480.8	483.5
Skates	17.2	8.3	15.4	3.2	0.0	0.0	0.0	0.0	0.0	7.3
Spiny Dogfish	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrnh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	6.8	0.8	10.9	2.7	77.6	57.2	38.6	10.9	0.9	2.3
Red King Crab	0.0	15.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	0.5	3.8	76.7	3.2	0.0	0.0	0.5	0.5	0.0	0.5
Other Inverts	24.0	55.9	267.6	147.9	10.4	5.0	3.2	84.8	9.5	15.9
TOTAL INVERTS	31.3	75.6	357.4	153.8	88.0	62.1	42.2	98.4	11.3	21.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1775.4	912.5	1643.8	1028.8	626.4	1408.0	580.6	882.2	557.0	619.6

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Haul	101	102	103	104	105	106	107	108	109	110
Location	S.E.KOD	S.W.KOD	S.W.KOD	S.W.KOD						
Month/Day/Year	06/30/90	06/30/90	06/30/90	06/30/90	06/30/90	06/30/90	06/30/90	07/01/90	07/01/90	07/01/90
Longitude Start	153 36.0	153 34.2	153 28.0	153 21.7	153 23.7	153 31.3	153 48.4	154 12.2	154 15.7	154 15.6
Latitude Start	56 42.8	56 40.1	56 38.7	56 35.4	56 35.3	56 33.8	56 39.2	56 45.8	56 45.8	56 45.8
Heading, Degrees	140	180	180	95	186	0	200	230	227	
Average Depth (m)	157	155	146	144	141	154	101	90	46	46
Duration (min)	20	28	27	26	29	27	26	27	26	25
Distance Fished (km)	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	22	1	1	22	1
Tow Catch (kg)	562.5	303.9	401.9	750.2	871.8	0.0	1137.2	737.5	0.0	434.5
KILOGRAMS/ 1.85 KILOMETER										
Pollock	89.6	66.7	91.6	324.3	171.5	0.0	104.3	135.6	0.0	48.1
Pacific Cod	51.0	29.5	26.3	7.7	127.9	0.0	46.3	22.7	0.0	1.8
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	2.3	2.3	14.1	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.5	0.0	5.9	0.0	0.0	9.1	24.0	0.0	14.1
Other Roundfish	6.8	4.5	4.5	5.4	0.5	0.0	1.8	4.1	0.0	8.2
TOTAL ROUND FISH	149.7	103.4	136.5	347.9	299.8	0.0	161.5	186.4	0.0	72.1
Arrowtooth Flndr	142.3	87.5	213.6	203.2	374.2	0.0	294.8	38.6	0.0	21.8
Flathead Sole	148.0	52.6	39.9	164.7	124.7	0.0	122.9	155.1	0.0	50.8
Rock Sole	14.2	0.0	0.0	0.0	0.0	0.0	184.2	0.0	0.0	0.0
Rex Sole	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	8.6	0.0	0.0	20.9	0.0	4.5	0.0	0.0	0.0
Pac Halibut	86.2	21.3	0.0	0.0	13.6	0.0	27.2	64.4	0.0	15.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	70.3
Other Flatfish	5.7	0.0	0.0	0.0	0.0	0.0	319.3	15.4	0.0	147.0
TOTAL FLATFISH	396.3	170.1	253.6	372.9	533.4	0.0	953.0	297.6	0.0	304.8
Skates	2.8	15.9	1.8	1.4	3.6	0.0	21.8	117.9	0.0	52.6
Spiny Dogfish	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrnh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.6	0.9	1.8	2.7	4.1	0.0	0.5	7.3	0.0	0.0
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	1.1	0.0	0.5	1.4	0.5	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	0.5	0.0	1.8	0.9	0.0	0.5	0.0	0.0	0.0
Other Inverts	11.9	13.2	7.7	19.5	29.5	0.0	0.0	128.4	0.0	5.0
TOTAL INVERTS	13.6	14.5	10.0	25.4	34.9	0.0	0.9	135.6	0.0	5.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	562.5	303.9	401.9	750.2	871.8	0.0	1137.2	737.5	0.0	434.5

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Appendix C. (page 12 of 43)

Haul	111	112	113	114	115	116	117	118	119	120
Location	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD
Month/Day/Year	07/01/90	07/01/90	07/01/90	07/01/90	07/02/90	07/02/90	07/02/90	07/02/90	07/02/90	07/02/90
Longitude Start	154 18.4	154 20.8	154 20.7	154 19.5	154 22.3	154 24.8	154 29.7	154 27.8	154 25.9	154 30.7
Latitude Start	56 43.7	56 43.3	56 45.3	56 47.5	56 50.9	56 50.3	56 50.9	56 47.5	56 44.9	56 45.2
Heading, Degrees	255	266	254	258	180	320	180	133	220	311
Average Depth (m)	71	71	59	51	57	59	69	64	62	73
Duration (min)	25	27	26	27	26	26	28	28	26	27
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1168.9	1356.7	700.8	606.5	631.4	638.2	1047.8	512.6	929.0	1030.1
KILOGRAMS/ 1.85 KILOMETER										
Pollock	163.3	196.0	257.6	154.7	34.9	56.2	221.4	73.5	188.7	122.0
Pacific Cod	51.3	31.8	6.8	0.0	9.1	22.7	15.9	9.5	15.9	0.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	19.1	9.1	27.2	7.7	37.6	40.8	32.2	0.0	0.0
Other Roundfish	4.1	20.4	0.9	14.1	3.6	14.5	14.1	19.5	13.2	32.7
TOTAL ROUNDFISH	218.6	267.2	274.4	196.0	55.3	131.1	292.1	134.7	217.7	154.7
Arrowtooth Flndr	422.3	768.4	81.2	54.4	69.9	112.5	205.0	73.5	131.1	234.1
Flathead Sole	150.1	150.6	184.2	154.7	244.0	210.9	131.1	90.7	324.8	253.6
Rock Sole	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Rex Sole	0.0	5.9	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	93.4	33.1	33.6	15.9	42.2	13.6	31.3	58.5	57.2	35.8
Starry Flndr	0.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	60.3	18.6	137.9	94.3	0.0	7.3	34.0	36.7	39.0
Other Flatfish	7.3	0.0	0.0	4.1	0.0	0.0	0.0	3.6	104.8	58.5
TOTAL FLATFISH	673.1	1020.1	317.5	367.0	464.0	337.0	374.7	260.4	654.5	626.0
Skates	274.9	68.9	104.3	34.9	110.2	165.6	334.3	89.8	54.9	205.5
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.5	0.5	0.5	0.5	0.5	0.5	27.7	1.8	1.4	40.4
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Scallop	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Other Inverts	1.8	0.0	4.1	8.2	1.4	4.1	18.6	25.9	0.5	3.2
TOTAL INVERTS	2.3	0.5	4.5	8.6	1.8	4.5	46.7	27.7	1.8	44.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1168.9	1356.7	700.8	606.5	631.4	638.2	1047.8	512.6	929.0	1030.1

-Continued-

Appendix C. (page 13 of 43)

Haul	121	122	123	124	125	126	127	128	129	130
Location	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD
Month/Day/Year	07/02/90	07/02/90	07/03/90	07/03/90	07/03/90	07/03/90	07/03/90	07/03/90	07/03/90	07/03/90
Longitude Start	154 25.6	154 13.2	155 8.3	155 9.9	155 17.6	155 29.7	155 37.2	155 46.1	155 36.0	155 39.9
Latitude Start	56 42.4	56 42.9	56 49.4	56 44.3	56 41.5	56 39.5	56 38.7	56 34.2	56 33.5	56 29.6
Heading, Degrees	158	2	32	212	207	205	220	180	193	230
Average Depth (m)	18	37	113	79	102	208	232	230	165	132
Duration (min)	12	23	27	26	13	14	14	26	14	14
Distance Fished (km)	0.5	1.0	1.0	1.0	0.5	0.5	0.5	1.0	0.5	0.5
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	98.9	105.7	3365.7	5443.2	6104.5	1475.1	844.6	906.7	4259.3	5230.0
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	0.0	0.0	436.4	440.4	1.8	96.2	36.3	10.4	0.0	0.0
Pacific Cod	0.0	0.0	302.1	69.4	65.3	155.1	7.3	14.1	68.0	360.2
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.5	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	29.9	0.9	22.7	0.9	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	98.0	4.5	0.0	0.0	0.0	0.0	78.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	11.8	31.8	81.2	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	6.8	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Other Roundfish	2.7	0.0	0.0	0.0	0.0	7.3	7.3	7.3	0.0	0.0
TOTAL ROUNDFISH	2.7	6.8	836.4	514.4	67.1	300.3	84.4	135.6	239.5	360.2
Arrowtooth Flndr	4.5	1.4	2280.2	4116.8	5700.8	981.6	587.0	505.8	3822.0	4427.1
Flathead Sole	8.2	0.5	154.7	110.2	112.5	59.9	71.7	66.2	66.2	313.9
Rock Sole	20.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rex Sole	0.0	0.0	0.0	176.0	169.6	0.0	0.0	4.1	72.6	23.6
Dover Sole	0.0	0.0	35.4	374.2	0.0	46.3	36.3	99.3	59.0	86.2
Pac Halibut	0.9	15.4	48.5	144.7	36.3	71.7	27.2	17.7	0.0	18.1
Starry Flndr	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	42.6	19.1	2518.8	4922.0	6019.2	1159.4	722.1	693.1	4019.8	4868.9
Skates	9.1	7.3	5.9	5.4	17.2	11.8	31.8	59.4	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.0	0.0	0.5	0.0	0.0	0.9	1.8	3.6	0.0	0.9
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.5	0.0
Scallop	0.0	0.0	0.0	1.4	0.9	0.0	0.0	0.0	0.0	0.0
Other Inverts	44.5	72.6	4.1	0.0	0.0	1.8	3.6	14.5	0.0	0.0
TOTAL INVERTS	44.5	72.6	4.5	1.4	0.9	3.6	6.4	18.6	0.0	0.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	98.9	105.7	3365.7	5443.2	6104.5	1475.1	844.6	906.7	4259.3	5230.0

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Haul	131	132	133	134	135	136	137	138	139	140
Location	S.W.KOD	S.W.KOD	S.W.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.E.KOD	S.W.KOD
Month/Day/Year	07/03/90	07/04/90	07/04/90	07/04/90	07/04/90	07/04/90	07/04/90	07/05/90	07/05/90	07/05/90
Longitude Start	155 45.8	155 39.4	155 47.3	154 14.0	154 8.0	154 15.9	154 6.6	153 37.2	153 31.3	154 12.3
Latitude Start	56 20.1	56 20.0	56 15.0	56 14.4	56 13.9	56 19.0	56 19.9	56 28.8	56 33.5	56 48.2
Heading, Degrees	202	270	29	69	92	287	96	12	10	180
Average Depth (m)	77	69	71	124	135	91	82	146	155	35
Duration (min)	19	27	26	24	27	26	20	15	27	26
Distance Fished (km)	0.8	1.0	1.0	0.8	1.0	1.0	0.7	0.5	0.9	1.0
Performance	1	1	1	1	1	1	23	1	1	1
Tow Catch (kg)	264.2	510.8	337.5	1853.5	729.8	1823.5	438.0	201.4	485.9	1088.2
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	0.0	0.0	0.0	0.0	0.0	161.0	0.6	19.1	175.9	4.1
Pacific Cod	17.6	216.8	251.3	57.8	11.8	163.3	57.7	18.1	23.7	5.9
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.0	1.4
Thornyhead Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	2.3	0.0	0.0	1.8	0.0	0.6	24.5	0.0	31.3
Other Roundfish	0.0	0.5	0.0	1.1	0.5	2.3	17.5	0.0	0.0	31.8
TOTAL ROUND FISH	17.6	219.5	251.3	59.0	14.1	326.6	76.5	72.6	201.6	76.2
Arrowtooth Flndr	53.3	7.3	0.5	1391.4	327.0	481.3	120.5	17.2	123.0	15.4
Flathead Sole	64.1	31.3	13.6	37.4	38.6	178.3	16.2	2.7	52.9	0.9
Rock Sole	20.4	140.2	51.7	0.0	0.0	427.7	104.3	0.0	0.0	2.7
Rex Sole	0.0	0.0	0.0	162.7	235.4	133.8	0.0	10.0	23.7	0.0
Dover Sole	0.0	0.0	0.0	137.8	96.2	0.0	0.0	3.6	29.2	0.0
Pac Halibut	18.1	24.0	0.0	14.2	13.6	8.6	1.9	0.0	8.1	10.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	107.0
Other Flatfish	4.5	65.3	18.6	12.5	0.0	240.9	7.1	0.0	0.0	587.9
TOTAL FLATFISH	160.5	268.1	84.4	1756.0	710.8	1470.6	250.1	33.6	230.9	723.9
Skates	50.5	0.0	0.0	1.1	1.8	23.6	34.3	0.0	11.6	21.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.0	0.0	0.0	5.7	0.5	0.9	0.6	1.8	5.0	4.1
Red King Crab	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193.7
Shrimp spp.	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.9
Scallop	1.1	0.9	0.0	0.6	0.0	0.0	0.0	0.0	1.0	3.6
Other Inverts	25.5	22.2	1.8	31.2	2.3	1.8	76.5	93.4	29.7	62.1
TOTAL INVERTS	35.7	23.1	1.8	37.4	3.2	2.7	77.1	95.3	35.8	266.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	264.2	510.8	337.5	1853.5	729.8	1823.5	438.0	201.4	485.9	1088.2

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Haul	141	142	143	144	145	146	147	148	149	150
Location	S.W.KOD									
Month/Day/Year	07/06/90	07/06/90	07/06/90	07/06/90	07/06/90	07/06/90	07/06/90	07/07/90	07/07/90	07/07/90
Longitude Start	154 11.4	154 9.7	154 7.3	154 8.8	154 8.3	154 5.1	154 1.1	154 8.2	154 5.6	154 4.3
Latitude Start	56 51.1	56 50.6	56 49.1	56 46.0	56 46.8	56 50.5	56 53.2	56 51.8	56 53.2	56 54.7
Heading, Degrees	206	38	195	17	11	50	34	45	21	10
Average Depth (m)	53	51	73	60	71	60	73	55	80	93
Duration (min)	27	29	26	26	27	26	26	27	27	27
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	20	1	1	1	1	1	1
Tow Catch (kg)	1295.9	1117.7	1187.1	0.0	1174.4	1120.4	740.7	700.8	552.5	537.1
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	661.3	610.1	148.3	0.0	130.2	357.4	79.4	159.7	88.9	112.5
Pacific Cod	27.2	21.8	285.8	0.0	14.5	34.0	67.6	22.2	21.3	33.6
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	19.1	0.0	13.6	1.4
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	1.4	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.5	0.0	0.0	0.0	0.0	0.5	0.0	1.4	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	42.6	0.0	12.2	0.0	2.7	34.9	62.1	19.5	65.3	0.0
Other Roundfish	42.6	6.4	26.8	0.0	5.4	14.1	32.2	6.8	4.1	27.7
TOTAL ROUNDFISH	775.7	638.2	473.6	0.0	152.9	440.9	260.4	209.6	193.2	175.1
Arrowtooth Flndr	53.5	91.6	50.3	0.0	78.0	56.2	49.0	50.3	3.2	0.0
Flathead Sole	205.5	106.6	85.3	0.0	130.2	378.8	151.0	219.1	107.0	108.0
Rock Sole	0.0	0.0	9.1	0.0	0.0	0.0	10.4	0.0	0.0	0.0
Rex Sole	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	6.8	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	5.9	3.2	6.4	0.0	125.6	75.3	20.4	5.9	0.0	41.3
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	134.3	99.3	184.2	0.0	195.0	69.9	94.3	114.3	3.2	0.0
Other Flatfish	0.0	1.8	26.8	0.0	0.0	56.2	0.0	13.6	0.0	0.0
TOTAL FLATFISH	406.0	304.4	364.2	0.0	528.9	636.4	325.2	403.2	113.4	149.2
Skates	33.6	36.7	45.8	0.0	26.8	0.0	0.0	23.6	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	40.4	97.5	246.8	0.0	400.1	25.4	137.4	57.2	222.3	171.9
Red King Crab	31.3	26.8	20.9	0.0	33.1	0.0	12.7	4.5	5.0	5.4
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	1.4	0.5	0.5	0.0	0.0
Scallop	2.3	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
Other Inverts	6.8	14.1	35.8	0.0	32.7	16.3	1.8	2.3	18.6	35.4
TOTAL INVERTS	80.7	138.3	303.5	0.0	465.8	43.1	155.1	64.4	245.8	212.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1295.9	1117.7	1187.1	0.0	1174.4	1120.4	740.7	700.8	552.5	537.1

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Haul	151	152	153	154	155	156	157	158	159	160
Location	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	S.W.KOD	AKUTAN	AKUTAN	AKUTAN	
Month/Day/Year	07/07/90	07/07/90	07/07/90	07/07/90	07/07/90	07/08/90	07/08/90	07/21/90	07/21/90	07/21/90
Longitude Start	153 58.3	153 57.5	154 1.7	153 59.2	153 55.6	153 50.2	153 57.4	165 42.6	165 42.5	165 43.7
Latitude Start	56 55.3	56 54.8	56 56.9	56 58.3	57 3.3	57 5.8	57 1.8	54 9.3	54 11.5	54 11.2
Heading, Degrees	230	68	28	234	44	245	212	355	340	333
Average Depth (m)	64	68	117	132	177	132	150	71	80	88
Duration (min)	27	26	9	27	28	26	27	26	27	27
Distance Fished (km)	1.0	1.0	0.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	23	1	1	1	1	1	1	1
Tow Catch (kg)	1066.0	924.9	0.0	528.4	518.5	438.2	453.6	1366.2	872.7	1046.4
KILOGRAMS/ 1.85 KILOMETER										
Pollock	369.2	51.3	0.0	64.9	27.2	102.5	153.8	98.0	8.2	367.0
Pacific Cod	0.0	9.1	0.0	11.3	21.8	17.7	87.1	23.6	44.0	42.6
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.9	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	23.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.1	49.4	80.3
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	48.1	28.1	0.0	14.5	21.3	5.4	2.7	143.3	99.8	37.2
Other Roundfish	10.4	30.8	0.0	23.6	107.5	19.5	24.5	25.4	16.8	2.7
TOTAL ROUND FISH	451.3	120.2	0.0	116.1	177.8	145.2	268.1	352.4	218.2	529.8
Arrowtooth Flndr	64.4	92.5	0.0	46.3	15.4	6.8	17.7	343.8	62.1	192.8
Flathead Sole	313.0	348.8	0.0	249.9	174.6	215.0	103.9	286.2	5.4	149.2
Rock Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.7	105.7	10.0
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	2.3	20.4
Dover Sole	0.0	0.0	0.0	0.0	56.7	0.0	0.0	0.0	1.8	0.0
Pac Halibut	3.6	28.1	0.0	0.0	0.0	0.0	0.0	20.4	9.1	9.1
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	144.7	200.0	0.0	0.0	0.0	0.0	0.0	45.4	0.0	0.0
Other Flatfish	0.0	0.0	0.0	38.6	0.0	29.5	0.0	0.0	0.0	0.0
TOTAL FLATFISH	525.7	669.5	0.0	334.8	246.8	251.3	121.6	810.6	186.4	381.5
Skates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	17.2	5.0	0.0	43.1	87.1	30.4	57.6	42.6	180.5	103.4
Red King Crab	9.1	111.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	6.8	9.5	0.0	0.0	0.0	0.0	0.0	0.0	84.8	8.2
Shrimp spp.	0.0	0.0	0.0	9.5	3.2	5.4	2.7	0.0	0.0	0.0
Scallop	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.5	3.6	1.4
Other Inverts	54.9	8.6	0.0	24.9	3.6	5.9	3.6	160.1	199.1	22.2
TOTAL INVERTS	88.9	135.2	0.0	77.6	93.9	41.7	64.0	203.2	468.1	135.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1066.0	924.9	0.0	528.4	518.5	438.2	453.6	1366.2	872.7	1046.4

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Haul	161	162	163	164	165	166	167	168	169	170
Location	AKUTAN	AKUTAN	UNAK/KAL							
Month/Day/Year	07/21/90	07/21/90	07/21/90	07/22/90	07/22/90	07/22/90	07/22/90	07/22/90	07/23/90	07/23/90
Longitude Start	165 44.6	165 45.5	166 36.3	166 29.6	166 29.5	166 31.9	166 28.0	166 30.8	166 35.6	166 21.8
Latitude Start	54 13.6	54 16.2	53 56.5	53 57.3	53 58.2	53 59.3	53 59.8	54 2.3	54 1.5	53 58.5
Heading, Degrees	333	350	6	267	270	351	28	8	184	33
Average Depth (m)	91	104	132	71	101	154	91	177	121	42
Duration (min)	27	26	26	26	27	26	24	26	26	20
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.8
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	351.5	622.8	1277.3	2046.2	1961.8	581.1	700.6	536.2	732.6	1207.7
KILOGRAMS/ 1.85 KILOMETER										
Pollock	150.1	85.3	420.5	9.5	8.2	356.5	40.3	315.2	472.6	5.7
Pacific Cod	1.4	2.3	32.2	78.0	59.4	11.3	40.8	14.5	36.7	0.0
Pac Ocean Perch	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	1.8	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.9	0.0	17.7	1.8	0.0	2.3	0.0	0.0
Herring	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	1.4	14.1	74.8	798.3	512.6	0.9	136.6	0.0	17.2	146.3
Other Roundfish	2.7	12.7	45.8	8.2	1.4	3.2	4.5	0.5	4.5	51.6
TOTAL ROUNDFISH	159.7	114.3	583.8	894.0	599.2	374.7	222.3	332.5	533.0	203.6
Arrowtooth Flndr	23.6	72.6	262.6	257.6	683.6	31.3	170.4	41.3	1.4	17.6
Flathead Sole	36.7	56.7	270.3	270.3	328.4	136.1	97.3	26.3	16.8	10.8
Rock Sole	0.0	31.8	7.3	425.0	150.6	0.0	43.8	0.0	12.2	838.0
Rex Sole	0.9	44.0	0.0	58.1	112.9	0.0	29.2	41.3	43.1	0.0
Dover Sole	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	0.0	19.5	0.5	53.5	47.2	9.5	0.5	0.0	0.0	4.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	25.9	0.0	0.0	0.0	0.0	0.0	39.1
Other Flattfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	61.2	225.9	540.7	1090.4	1322.7	176.9	341.2	108.9	73.5	909.5
Skates	0.5	0.0	3.6	0.0	3.2	0.0	44.9	25.9	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	63.0	219.5	139.3	0.0	20.9	23.6	6.0	37.6	3.2	0.6
Red King Crab	0.0	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.9	0.0	0.0	0.5	0.0	0.5	0.0	0.0
Scallop	0.0	1.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0	2.8
Other Inverts	67.1	61.2	9.1	29.0	15.9	5.4	85.7	29.0	122.9	91.3
TOTAL INVERTS	130.2	282.6	149.2	61.7	36.7	29.5	92.2	67.1	126.1	94.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
TOTAL CATCH (kg/1.85km)	351.5	622.8	1277.3	2046.2	1961.8	581.1	700.6	536.2	732.6	1207.7

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Haul	171	172	173	174	175	176	177	178	179	180
Location	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER	USOF BAY	USOF BAY	USOF BAY
Month/Day/Year	07/23/90	07/23/90	07/24/90	07/24/90	07/24/90	07/24/90	07/24/90	07/25/90	07/25/90	07/25/90
Longitude Start	166 12.0	166 20.6	166 2.1	165 59.4	166 23.2	166 26.0	166 30.5	166 40.1	166 37.3	166 42.7
Latitude Start	53 52.5	53 51.1	53 54.2	53 50.7	53 48.5	53 47.5	53 45.1	53 31.5	53 32.3	53 28.4
Heading, Degrees	148	44	262	150	22	59	61	130	170	141
Average Depth (m)	238	283	157	101	251	251	174	75	79	104
Duration (min)	13	27	27	28	26	26	27	25	27	27
Distance Fished (km)	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1141.3	475.4	10652.3	961.6	313.0	277.6	724.8	888.1	485.8	617.3
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	177.8	20.4	293.9	0.5	41.3	75.8	296.7	0.0	0.0	0.0
Pacific Cod	255.8	12.7	46.7	0.5	62.6	18.1	26.3	58.5	68.9	53.1
Pac Ocean Perch	0.9	0.0	2.7	12.2	0.0	0.9	49.9	0.0	0.0	0.0
Rougheye Rkfish	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.9	1.8	0.9	0.0	0.5	0.0
Sablefish	11.8	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	11.8	21.8	44.0	0.0	23.6	5.4	0.5	4.1	0.0	0.0
Other Roundfish	18.1	17.2	7.3	10.0	2.7	7.7	0.9	7.3	3.2	0.9
TOTAL ROUNDFISH	476.3	78.9	394.6	23.1	131.1	109.8	395.1	69.9	72.6	54.0
Arrowtooth Flndr	93.4	30.8	0.0	15.4	32.2	59.9	170.1	494.9	208.7	376.9
Flathead Sole	62.6	73.5	0.0	0.0	70.3	63.0	122.0	59.9	59.9	54.4
Rock Sole	0.0	0.0	14.5	69.4	0.0	0.0	0.0	85.3	65.8	25.4
Rex Sole	13.6	0.9	102.1	0.0	4.1	1.8	2.3	6.8	2.3	26.8
Dover Sole	117.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	7.7
Pac Halibut	0.0	0.0	143.8	44.0	9.1	4.5	0.0	13.6	10.9	8.2
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.8	4.5	5.4
TOTAL FLATFISH	286.7	105.2	260.4	128.8	115.7	129.3	294.4	703.1	352.0	504.9
Skates	0.0	9.1	31.8	1.4	18.1	7.3	0.0	28.1	4.5	40.4
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	30.8	215.0	0.0	0.0	22.7	22.2	32.7	0.5	0.5	11.3
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	10.9	0.0	0.9	5.9	4.1	0.5	0.0	0.0	0.0
Scallop	6.4	0.0	44.0	15.4	0.5	0.0	0.0	0.0	3.2	0.5
Other Inverts	339.3	56.2	9921.5	792.0	19.1	5.0	2.3	86.6	53.1	6.4
TOTAL INVERTS	378.3	282.1	9965.5	808.3	48.1	31.3	35.4	87.1	56.7	18.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1141.3	475.4	10652.3	961.6	313.0	277.6	724.8	888.1	485.8	617.3

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Haul	181	182	183	184	185	186	187	188	189	190
Location	USOF BAY	USOF BAY	C. IDAK	C. IDAK	C. IDAK	C. IDAK	INANUD.	INANUD.	INANUD.	INANUD.
Month/Day/Year	07/25/90	07/25/90	07/27/90	07/27/90	07/27/90	07/27/90	07/28/90	07/28/90	07/28/90	07/28/90
Longitude Start	166 47.4	166 41.0	167 38.7	167 39.0	167 40.1	167 36.2	168 23.8	168 26.2	168 29.5	168 37.3
Latitude Start	53 33.8	53 26.7	53 29.7	53 29.7	53 32.2	53 32.5	53 18.1	53 19.0	53 20.5	53 25.3
Heading, Degrees	162	9	206	210	147	146	327	357	105	148
Average Depth (m)	113	99	123	123	93	73	42	57	80	115
Duration (min)	27	27	26	17	25	26	21	26	26	27
Distance Fished (km)	1.0	1.0	1.0	0.7	1.0	1.0	0.7	1.0	1.0	1.0
Performance	1	1	22	1	1	1	1	1	1	1
Tow Catch (kg)	994.7	499.4	0.0	927.3	337.5	256.3	99.1	149.7	459.5	222.3
KILOGRAMS/ 1.85 KILOMETER										
Pollock	654.1	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Pacific Cod	113.9	0.0	0.0	177.6	5.9	0.0	0.0	0.0	0.0	7.3
Pac Ocean Perch	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	35.4	0.0	25.9	15.4	0.0	0.6	5.9	0.9	0.9
Other Roundfish	2.3	0.9	0.0	0.0	0.5	0.5	0.6	5.4	30.8	0.9
TOTAL ROUNDFISH	773.4	36.3	0.0	204.1	22.2	0.5	1.3	11.3	31.8	9.1
Arrowtooth Flndr	97.1	279.4	0.0	451.7	23.6	76.2	7.1	28.1	84.8	29.5
Flathead Sole	40.4	3.6	0.0	33.0	7.7	0.0	0.6	1.4	24.5	0.0
Rock Sole	0.0	98.9	0.0	192.5	176.9	122.9	48.6	49.4	50.8	11.8
Rex Sole	0.0	6.4	0.0	0.0	10.4	11.8	0.6	0.0	5.9	1.4
Dover Sole	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	0.0	16.8	0.0	0.0	27.2	15.9	2.6	14.5	220.0	7.3
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.8	0.5	0.0
TOTAL FLATFISH	137.4	408.7	0.0	677.2	245.8	226.8	60.9	95.3	386.5	49.9
Skates	2.3	0.0	0.0	0.0	0.0	5.0	27.9	32.2	0.0	43.1
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	75.3	0.9	0.0	5.8	1.8	0.5	0.6	0.5	1.8	0.0
Red King Crab	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	3.6	0.0	1.9	3.2	4.1	0.6	0.5	4.5	25.9
Other Inverts	1.8	49.9	0.0	38.2	64.4	19.5	7.8	10.0	34.9	94.3
TOTAL INVERTS	81.6	54.4	0.0	46.0	69.4	24.0	9.1	10.9	41.3	120.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	994.7	499.4	0.0	927.3	337.5	256.3	99.1	149.7	459.5	222.3

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Haul	191	192	193	194	195	196	197	198	199	200
Location	PUM. BAY	PUM. BAY	MAKUSHIN	MAKUSHIN	MAKUSHIN	MAKUSHIN	MAKUSHIN	MAKUSHIN	MAKUSHIN	MAKUSHIN
Month/Day/Year	07/29/90	07/29/90	07/29/90	07/29/90	07/29/90	07/29/90	07/29/90	07/29/90	07/30/90	07/30/90
Longitude Start	167 1.9	167 6.9	167 2.8	167 7.7	167 11.4	167 6.9	167 2.0	166 56.4	166 52.3	166 46.7
Latitude Start	53 32.2	53 32.1	53 38.8	53 42.0	53 44.5	53 44.3	53 45.0	53 44.6	53 44.3	53 42.7
Heading, Degrees	269	295	310	158	106	273	250	280	201	269
Average Depth (m)	79	59	97	126	115	119	198	199	174	93
Duration (min)	26	25	24	27	26	26	27	29	21	25
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	72.6	289.4	892.7	1125.4	1839.8	2086.5	360.2	735.7	445.1	576.5
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	20.9	5.9	269.9	714.4	1051.4	1394.4	20.4	14.1	18.1	150.6
Pacific Cod	4.5	16.3	6.4	28.6	6.8	33.6	5.4	14.5	20.4	4.5
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.9	0.0	0.0	2.3	1.4	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Sablefish	0.5	0.0	0.0	5.4	0.0	12.2	0.9	6.4	0.0	0.9
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	16.3	13.2	0.0	0.0	0.0	0.0	10.0	0.0	13.0	0.0
Other Roundfish	0.9	0.5	0.5	0.0	0.0	131.5	8.6	19.5	13.0	0.0
TOTAL ROUNDFISH	43.1	35.8	276.7	749.3	1058.2	1572.6	48.1	55.8	64.6	156.0
Arrowtooth Flndr	6.4	75.8	296.2	300.7	498.5	400.1	149.2	443.6	154.2	75.3
Flathead Sole	0.9	30.4	236.8	43.1	73.9	14.1	107.5	113.4	188.8	281.2
Rock Sole	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Rex Sole	3.2	0.0	0.0	1.8	155.1	51.3	10.4	29.5	11.9	0.5
Dover Sole	0.0	0.0	0.0	0.0	4.1	13.6	0.0	0.0	0.0	0.0
Pac Halibut	2.3	17.2	43.5	27.7	5.4	10.4	0.0	0.0	0.0	0.0
Starry Flndr	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	2.3	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	6.8	40.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	23.6	206.4	576.5	373.3	737.1	489.4	267.2	586.5	354.9	360.6
Skates	0.0	8.2	9.5	0.0	27.2	3.2	0.5	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.5	2.7	14.5	0.0	14.1	0.9	26.3	89.4	21.0	54.0
Red King Crab	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.9	1.4	1.4	1.4	0.9	0.6	0.5
Scallop	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Other Inverts	5.0	29.0	15.4	1.8	1.4	19.1	16.8	3.2	4.0	5.4
TOTAL INVERTS	5.9	39.0	29.9	2.7	17.2	21.3	44.5	93.4	25.5	59.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	72.6	289.4	892.7	1125.4	1839.8	2086.5	360.2	735.7	445.1	576.5

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Haul	201	202	203	204	205	206	207	208	209	210
Location	AKUN BAY	AKUN BAY	AKUN BAY	MORZHOV.						
Month/Day/Year	08/01/90	08/01/90	08/01/90	08/02/90	08/02/90	08/02/90	08/02/90	08/02/90	08/02/90	08/02/90
Longitude Start	165 32.5	165 30.8	165 24.9	163 11.4	163 7.5	163 5.4	163 7.3	163 0.2	163 1.3	162 59.5
Latitude Start	54 15.9	54 14.7	54 16.3	54 51.1	54 51.2	54 50.8	54 47.6	54 49.9	54 46.3	54 47.4
Heading, Degrees	77	69	260	35	55	240	71	210	20	192
Average Depth (m)	51	82	128	42	93	88	35	88	51	62
Duration (min)	25	26	13	25	27	26	26	27	27	26
Distance Fished (km)	1.0	1.0	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	22	1
Tow Catch (kg)	296.2	950.7	1020.6	1746.3	1261.9	1104.5	724.8	1187.1	0.0	1120.8
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	0.5	126.6	0.9	22.2	436.4	432.7	0.0	186.0	0.0	16.3
Pacific Cod	19.5	6.8	1.8	140.2	91.6	29.0	306.2	9.1	0.0	20.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.5	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	39.9	121.1	260.4	37.2	36.3	73.0	0.0	40.8	0.0	206.8
Other Roundfish	12.2	23.1	11.8	7.7	5.9	17.7	0.0	8.2	0.0	7.3
TOTAL ROUND FISH	72.6	278.1	278.5	207.3	572.0	552.5	306.2	244.0	0.0	250.4
Arrowtooth Flndr	4.1	32.2	35.4	284.4	145.6	207.7	9.5	315.7	0.0	197.3
Flathead Sole	0.0	22.7	0.0	0.0	161.5	168.7	0.0	241.8	0.0	16.3
Rock Sole	122.0	476.3	29.9	432.7	121.1	4.5	261.3	0.0	0.0	328.9
Rex Sole	0.0	1.8	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Dover Sole	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Pac Halibut	5.0	4.5	35.4	112.9	92.5	89.4	40.4	10.4	0.0	18.1
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	296.7	40.4	16.8	0.0	250.8	0.0	21.3
Other Flatfish	0.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	131.1	539.8	100.7	1126.7	585.1	487.6	311.2	818.7	0.0	583.8
Skates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrnh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.5	0.5	0.0	0.5	14.5	46.3	0.5	32.7	0.0	0.5
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.9	0.0	10.0	8.6	0.0	0.9	0.0	0.0
Scallop	8.6	53.1	46.3	0.0	0.0	0.0	0.0	14.5	0.0	0.0
Other Inverts	83.5	79.4	594.2	411.9	75.8	9.5	107.0	76.2	0.0	286.2
TOTAL INVERTS	92.5	132.9	641.4	412.3	104.8	64.4	107.5	124.3	0.0	286.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85Km)	296.2	950.7	1020.6	1746.3	1261.9	1104.5	724.8	1187.1	0.0	1120.8

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Haul	211	212	213	214	215	216	217	218	219	220
Location	MORZHOV.	SANAK	SANAK	SANAK	SANAK	SANAK	MORZHOV.	MORZHOV.	MORZHOV.	MORZHOV.
Month/Day/Year	08/02/90	08/03/90	08/03/90	08/03/90	08/03/90	08/03/90	08/04/90	08/04/90	08/04/90	08/04/90
Longitude Start	162 56.8	162 41.1	162 32.4	162 34.7	162 26.0	162 24.0	163 14.5	163 11.9	163 12.0	163 3.6
Latitude Start	54 47.3	54 34.1	54 33.2	54 30.0	54 28.5	54 31.3	54 46.9	54 47.7	54 49.6	54 51.1
Heading, Degrees	165	180	172	125	122	180	64	95	50	40
Average Depth (m)	88	132	137	141	143	148	82	88	86	86
Duration (min)	22	20	24	23	24	26	27	26	26	28
Distance Fished (km)	0.8	0.7	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1092.0	350.6	220.9	282.7	57.6	169.2	917.6	2852.2	1332.2	1496.4
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	0.6	77.8	41.3	10.6	0.0	15.9	160.1	151.0	245.8	612.4
Pacific Cod	40.8	51.8	39.9	18.1	9.1	16.3	42.6	182.8	77.1	2.3
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	208.7	13.6	0.0	0.0	0.5	0.0	85.3	100.7	36.7	0.9
Other Roundfish	34.0	0.0	0.0	0.0	0.9	0.5	10.9	65.3	2.3	11.8
TOTAL ROUNDFISH	284.1	143.2	81.2	28.7	10.4	33.6	298.9	499.9	362.0	627.3
Arrowtooth Flndr	182.6	59.0	36.3	91.7	5.4	95.3	34.5	100.7	90.3	220.9
Flathead Sole	139.5	74.5	55.8	94.8	14.5	3.6	114.8	985.7	262.2	281.2
Rock Sole	208.7	0.0	0.0	0.0	0.0	0.0	256.3	885.0	245.4	0.0
Rex Sole	2.3	5.8	0.5	4.0	0.9	0.0	0.0	0.0	2.3	0.0
Dover Sole	0.0	5.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	70.3	0.0	23.6	27.7	12.7	9.5	23.6	70.8	43.1	37.2
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	105.7	0.0	0.0
Yellowfin Sole	32.9	0.0	0.0	0.0	0.0	0.0	42.6	161.0	220.9	142.9
Other Flatfish	11.9	0.0	0.0	0.0	0.0	0.0	66.7	18.1	12.2	0.0
TOTAL FLATFISH	648.1	145.2	118.4	218.2	33.6	108.4	538.4	2327.0	876.3	682.2
Skates	0.0	0.0	0.0	11.1	0.0	0.0	0.0	4.5	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	15.3	1.3	1.8	3.5	2.3	17.7	0.5	1.8	25.9	174.6
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.8
Scallop	5.1	0.0	0.0	0.5	0.5	0.0	2.3	0.0	0.0	2.7
Other Inverts	139.5	60.9	19.5	20.7	10.9	9.5	77.6	17.2	67.6	7.7
TOTAL INVERTS	159.9	62.2	21.3	24.7	13.6	27.2	80.3	20.9	93.9	186.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1092.0	350.6	220.9	282.7	57.6	169.2	917.6	2852.2	1332.2	1496.4

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Haul	221	222	223	224	225	226	227	228	229	230
Location	MORZHov.									
Month/Day/Year	08/04/90	08/04/90	08/04/90	08/04/90	08/04/90	08/05/90	08/05/90	08/05/90	08/05/90	08/05/90
Longitude Start	162 53.9	162 57.5	162 58.7	162 57.7	163 1.1	163 4.7	163 0.1	163 2.8	163 9.4	163 5.0
Latitude Start	54 46.8	54 49.4	54 51.1	54 53.2	54 54.3	54 53.5	54 56.6	55 0.0	55 2.3	55 5.2
Heading, Degrees	340	333	4	1	57	30	0	317	0	160
Average Depth (m)	68	79	77	101	102	69	101	79	48	55
Duration (min)	26	28	25	27	28	27	27	31	28	24
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	551.1	1211.6	1031.0	1359.4	1719.6	1118.6	1957.7	992.0	714.4	1374.9
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	1.4	10.4	24.5	142.4	500.3	9.1	792.0	0.9	0.0	0.9
Pacific Cod	11.3	56.7	103.9	68.9	50.3	127.0	34.0	64.9	54.0	164.7
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	16.8	172.8	112.9	14.1	214.6	2.3	69.9	15.9	45.8	13.6
Other Roundfish	25.4	43.1	19.1	26.8	44.5	9.5	15.4	0.9	1.4	6.4
TOTAL ROUNDFISH	54.9	283.0	260.4	252.2	809.7	147.9	911.3	82.6	101.2	185.5
Arrowtooth Flndr	169.2	252.7	197.3	10.0	24.0	240.0	0.0	159.2	7.7	44.5
Flathead Sole	18.1	88.9	0.0	104.8	38.6	164.7	426.4	223.2	13.6	46.7
Rock Sole	205.5	92.1	59.9	0.0	11.8	5.4	0.0	24.0	152.9	21.8
Rex Sole	0.0	11.3	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	1.4	13.2	54.9	0.0	27.7	65.8	32.7	42.2	26.3	0.9
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	64.9	224.1	176.4	348.4	140.2	269.9	456.8	286.7	366.5	906.3
Other Flatfish	0.0	0.0	0.0	0.0	95.3	5.4	45.8	127.5	23.1	5.0
TOTAL FLATFISH	459.0	682.2	494.0	463.1	337.5	751.2	961.6	862.7	590.1	1025.1
Skates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.9	12.7	20.9	278.1	261.3	5.4	68.5	20.4	9.1	1.4
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.7	4.5	5.4
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.3	0.0	0.0
Scallop	0.0	4.5	0.9	1.8	0.0	40.8	0.0	0.0	0.0	3.2
Other Inverts	36.3	229.1	254.9	364.2	311.2	173.3	13.6	21.3	9.1	154.2
TOTAL INVERTS	37.2	246.3	276.7	644.1	572.4	219.5	84.8	46.7	23.1	164.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	551.1	1211.6	1031.0	1359.4	1719.6	1118.6	1957.7	992.0	714.4	1374.9

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Haul Location	231	232	233	234	235	236	237	238	239	240
Month/Day/Year	MORZHOV.	MORZHOV.	MORZHOV.	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY
Longitude Start	163 4.5	163 1.6	162 58.9	162 21.8	162 24.2	162 27.4	162 28.2	162 32.5	162 31.9	162 33.5
Latitude Start	55 3.2	55 1.0	54 58.3	55 0.2	54 58.8	54 59.2	55 1.2	55 3.3	55 10.5	55 14.0
Heading, Degrees	160	150	165	76	45	190	109	107	160	175
Average Depth (m)	84	90	101	97	37	44	77	59	101	49
Duration (min)	26	27	26	21	24	27	23	26	23	27
Distance Fished (km)	1.0	1.0	1.0	0.8	0.9	1.0	0.9	1.0	0.9	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	2567.4	3130.3	2290.7	1050.6	812.9	1540.9	1174.3	1816.2	2566.9	1035.6
KILOGRAMS / 1.85 KILOMETER										
Pollock	721.7	1681.0	449.5	12.5	0.0	0.0	497.4	18.1	2.5	5.4
Pacific Cod	37.6	73.0	63.5	29.5	40.8	218.6	29.7	96.2	122.5	23.6
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	44.0	0.0	374.7	9.6	52.4	0.0	48.4	37.2	0.0	57.2
Other Roundfish	0.0	0.0	24.0	9.6	0.0	1.4	1.0	4.1	2.0	0.9
TOTAL ROUNDFISH	803.3	1754.1	911.7	61.2	93.2	220.4	576.6	155.6	127.0	87.1
Arrowtooth Flndr	68.5	55.3	299.8	5.7	4.0	6.8	12.1	54.0	0.0	0.0
Flathead Sole	195.0	319.3	239.5	266.5	68.0	40.8	136.6	111.1	562.0	127.0
Rock Sole	0.0	0.0	15.0	11.3	240.4	505.3	0.0	606.5	84.7	15.0
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	36.7	7.7	86.2	0.0	13.1	99.3	29.7	56.2	4.0	24.5
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	280.7	84.8
Yellowfin Sole	1287.8	914.9	644.1	84.5	88.7	287.1	288.8	619.6	1350.7	577.0
Other Flatfish	49.0	0.0	0.0	140.6	0.0	0.0	4.0	0.0	0.0	0.0
TOTAL FLATFISH	1637.0	1297.3	1284.6	508.6	414.3	939.4	471.2	1447.4	2282.1	828.3
Skates	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	8.6	46.7	48.1	90.2	1.5	1.4	42.8	7.7	54.4	10.0
Red King Crab	18.1	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
Dungeness Crab	12.2	17.7	0.0	0.0	0.0	0.0	0.5	17.2	0.0	0.0
Shrimp spp.	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	0.0	0.0	0.0	10.1	6.4	5.0	106.1	0.0	0.0
Other Inverts	88.0	14.5	44.9	390.7	286.3	373.3	70.6	82.1	103.3	110.2
TOTAL INVERTS	127.0	78.9	94.3	480.8	297.9	381.0	126.5	213.2	157.8	120.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	2567.4	3130.3	2290.7	1050.6	812.9	1540.9	1174.3	1816.2	2566.9	1035.6

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Haul	241	242	243	244	245	246	247	248	249	250
Location	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY	COLD BAY
Month/Day/Year	08/07/90	08/07/90	08/07/90	08/07/90	08/07/90	08/07/90	08/08/90	08/08/90	08/08/90	08/08/90
Longitude Start	162 32.9	162 23.5	162 27.6	162 9.1	162 6.8	162 5.9	162 11.4	162 10.4	162 9.7	162 11.0
Latitude Start	55 11.5	55 5.4	55 7.4	54 57.7	54 56.9	54 59.7	55 5.4	55 5.0	55 7.2	58 8.2
Heading, Degrees	154	307	345	270	333	195	169	14	7	206
Average Depth (m)	68	49	90	82	82	99	42	86	73	33
Duration (min)	26	25	26	23	27	25	12	26	27	24
Distance Fished (km)	1.0	1.0	1.0	0.8	1.0	1.0	0.5	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	2009.0	1305.0	2649.9	632.8	979.8	1858.8	1092.3	2177.7	5275.3	605.6
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	4.5	1.4	6.8	5.7	240.4	313.9	0.0	758.0	468.6	0.0
Pacific Cod	20.4	20.4	75.3	52.7	34.9	105.7	6.4	54.9	128.4	70.8
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	90.7	59.9	28.9	0.0	0.0	127.9	41.3	10.0	0.0
Other Roundfish	0.0	0.0	0.0	2.8	0.5	47.6	3.6	3.2	6.4	0.0
TOTAL ROUND FISH	24.9	112.5	142.4	90.2	275.8	467.2	137.9	857.3	613.3	70.8
Arrowtooth Flndr	0.0	0.0	0.0	38.6	22.2	37.6	21.8	1.4	0.0	5.0
Flathead Sole	106.1	141.1	187.3	145.2	133.8	341.1	41.7	395.1	669.5	120.7
Rock Sole	63.5	0.0	199.1	0.0	15.0	0.0	117.9	27.7	0.0	2.3
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	30.4	0.0	0.0	19.8	80.3	77.6	14.5	16.3	24.9	7.3
Starry Flndr	63.5	543.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	1399.3	493.5	1359.0	208.7	407.8	409.1	591.5	710.8	3212.8	208.2
Other Flatfish	0.0	0.0	0.0	7.4	0.0	0.0	96.2	33.1	0.0	108.4
TOTAL FLATFISH	1662.9	1178.4	1745.4	419.6	659.1	865.5	883.6	1192.1	3907.3	451.8
Skates	0.0	0.0	0.0	19.8	0.0	0.0	0.0	0.0	0.0	11.3
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	107.5	9.5	695.4	11.9	37.6	22.2	0.9	84.8	6.4	0.5
Red King Crab	4.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
Dungeness Crab	14.1	0.9	0.0	0.0	0.0	0.0	1.8	0.0	2.3	23.6
Shrimp spp.	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	0.0	0.5	53.9	2.3	0.5	0.0	2.7	0.0	0.0
Other Inverts	195.0	2.3	66.2	37.4	5.0	503.5	68.0	40.8	736.2	47.6
TOTAL INVERTS	321.1	14.1	762.0	103.2	44.9	526.2	70.8	128.4	754.8	71.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	2009.0	1305.0	2649.9	632.8	979.8	1858.8	1092.3	2177.7	5275.3	605.6

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Haul	251	252	253	254	255	256	257	258	259	260
Location	COLD BAY	COLD BAY	COLD BAY	PAVLOF/V						
Month/Day/Year	08/08/90	08/08/90	08/08/90	08/09/90	08/09/90	08/09/90	08/09/90	08/09/90	08/09/90	08/09/90
Longitude Start	162 9.5	162 7.6	162 9.9	161 59.8	161 57.8	161 55.7	161 51.1	161 49.6	161 50.4	161 46.1
Latitude Start	55 3.9	54 54.9	54 53.0	55 13.2	55 11.9	55 11.3	55 14.4	55 13.8	55 12.0	55 13.1
Heading, Degrees	173	137	7	123	137	67	180	0	98	33
Average Depth (m)	77	80	71	68	71	86	86	93	90	117
Duration (min)	24	27	27	26	26	27	26	27	27	28
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	2819.6	555.2	490.8	1748.2	1069.6	1219.3	1840.7	2712.5	1767.7	754.3
-KILOGRAMS/ 1.85 KILOMETER-										
Pollack	980.7	10.0	0.0	369.7	225.4	206.8	411.9	218.6	579.2	81.6
Pacific Cod	34.0	13.2	9.5	160.1	57.6	79.8	41.7	44.5	38.6	56.7
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	10.9	58.5	59.0	0.0	0.0	39.9	209.6	12.2	34.5
Other Roundfish	5.4	1.4	1.8	3.6	0.0	8.2	0.0	27.2	0.0	0.5
TOTAL ROUNDFISH	1020.1	35.4	70.3	592.4	283.0	294.8	493.5	499.9	630.0	173.3
Arrowtooth Flndr	17.7	7.7	13.6	44.9	8.2	73.9	90.3	273.1	64.9	10.9
Flathead Sole	606.0	0.0	70.3	291.2	240.0	221.4	464.9	855.5	714.4	63.0
Rock Sole	0.0	0.0	31.3	106.6	9.1	31.8	76.2	0.0	27.7	0.0
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	63.5	8.6	2.3	56.7	7.7	15.0	40.4	26.8	16.8	0.0
Starry Flndr	0.0	0.0	0.0	0.0	58.1	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	748.9	213.6	265.4	582.9	377.8	317.5	345.2	473.1	172.4	138.8
Other Flatfish	39.9	35.8	21.3	0.0	34.5	0.0	53.1	0.0	0.0	0.0
TOTAL FLATFISH	1476.0	265.8	404.2	1082.3	735.3	659.5	1070.0	1628.4	996.1	212.7
Skates	0.0	45.8	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	28.6	56.7	1.8	0.9	7.3	124.3	5.4	15.9	2.3	52.6
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	24.5	4.5	0.5	0.0	0.5	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.9	1.4	1.8	1.4	0.0
Scallop	2.3	25.4	12.2	0.0	1.4	0.0	0.0	0.0	0.0	6.8
Other Inverts	292.6	126.1	2.3	48.1	25.4	139.3	270.3	566.1	137.9	308.9
TOTAL INVERTS	323.4	208.2	16.3	73.5	38.6	264.9	277.1	584.2	141.5	368.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	2819.6	555.2	490.8	1748.2	1069.6	1219.3	1840.7	2712.5	1767.7	754.3

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Haul	261	262	263	264	265	266	267	268	269	270
Location	PAVLOF/V									
Month/Day/Year	08/09/90	08/09/90	08/10/90	08/10/90	08/10/90	08/10/90	08/10/90	08/10/90	08/10/90	08/10/90
Longitude Start	161 45.4	161 47.9	161 51.3	161 45.5	161 42.1	161 37.3	161 32.8	161 26.9	161 30.7	161 35.5
Latitude Start	55 15.5	55 16.5	55 15.6	55 18.1	55 18.7	55 19.2	55 19.5	55 19.1	55 17.6	55 17.2
Heading, Degrees	269	216	184	45	90	90	60	270	270	251
Average Depth (m)	106	102	84	110	104	95	115	64	82	113
Duration (min)	27	27	19	23	26	26	26	24	25	26
Distance Fished (km)	1.0	1.0	0.7	0.9	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	2446.2	1980.4	1914.2	658.2	1249.7	1850.2	1397.5	941.2	1114.0	1594.8
KILOGRAMS/ 1.85 KILOMETER										
Pollock	878.6	332.9	296.1	168.8	323.0	255.8	287.6	0.0	0.0	415.5
Pacific Cod	27.7	37.6	90.1	96.3	44.0	50.3	70.3	45.8	36.3	179.2
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	3.6	20.9	129.0	0.0	0.0	53.5	18.1	2.3	21.3	25.9
Other Roundfish	1.8	3.2	1.3	8.6	3.6	20.0	44.5	1.8	5.4	56.2
TOTAL ROUND FISH	911.7	394.6	516.5	273.7	370.6	379.7	420.5	49.9	63.0	677.2
Arrowtooth Flndr	56.2	71.7	167.2	0.0	80.7	81.6	128.4	82.1	49.4	135.2
Flathead Sole	280.3	399.6	605.2	62.5	239.5	355.6	215.9	24.5	119.7	311.2
Rock Sole	22.2	41.7	68.0	0.0	0.0	0.0	15.4	205.0	137.0	33.6
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	30.4	0.0	0.6	0.0	12.2	13.2	9.5	266.7	62.6	12.7
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	280.3	599.7	451.0	256.5	239.5	313.0	318.4	205.0	462.2	207.7
Other Flatfish	0.0	154.2	0.0	0.0	0.0	0.0	0.0	13.2	59.9	0.0
TOTAL FLATFISH	669.5	1266.9	1292.1	319.0	572.0	763.4	687.7	796.5	890.9	700.4
Skates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	96.6	47.6	2.6	16.6	107.0	176.0	30.4	1.4	67.6	110.2
Red King Crab	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Shrimp spp.	1.8	1.8	0.0	0.0	0.0	0.0	0.9	0.0	0.0	2.3
Scallop	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.4	4.5	0.0
Other Inverts	766.6	269.4	96.6	43.3	200.0	531.2	258.1	91.2	88.0	104.8
TOTAL INVERTS	865.0	318.9	105.6	65.5	307.1	707.2	289.4	94.8	160.1	217.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	2446.2	1980.4	1914.2	658.2	1249.7	1850.2	1397.5	941.2	1114.0	1594.8

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Haul	271	272	273	274	275	276	277	278	279	280
Location	PAVLOF/V									
Month/Day/Year	08/11/90	08/11/90	08/11/90	08/11/90	08/11/90	08/11/90	08/11/90	08/11/90	08/12/90	08/12/90
Longitude Start	161 41.6	161 43.3	161 40.8	161 35.1	161 32.5	161 35.1	161 32.0	161 32.0	161 31.7	161 30.5
Latitude Start	55 16.2	55 22.0	55 22.8	55 20.8	55 21.7	55 24.0	55 24.6	55 27.1	55 30.7	55 33.3
Heading, Degrees	49	32	192	348	317	345	19	180	9	0
Average Depth (m)	104	75	124	97	73	82	40	48	37	29
Duration (min)	27	24	26	24	24	26	17	26	21	24
Distance Fished (km)	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1499.6	1625.4	1981.3	1849.3	1570.4	2215.8	1940.4	1660.6	2096.1	2230.8
KILOGRAMS/ 1.85 KILOMETER										
Pollock	351.1	348.3	153.3	227.7	46.7	512.6	0.0	0.0	0.5	54.4
Pacific Cod	67.1	52.4	60.8	24.9	18.1	24.9	175.4	24.9	275.3	49.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	17.2	27.7	9.1	24.0	0.0	59.9	32.8	0.0	1.4	1.8
Other Roundfish	14.5	0.0	7.3	20.9	5.0	5.9	1.5	0.0	2.7	3.2
TOTAL ROUND FISH	450.0	428.4	230.4	297.6	69.9	603.3	209.7	24.9	279.9	108.4
Arrowtooth Flndr	146.5	45.4	307.1	119.7	5.9	55.3	20.2	19.1	3.2	0.0
Flathead Sole	253.6	139.1	413.2	395.5	18.1	222.3	8.1	23.1	20.0	33.6
Rock Sole	17.2	153.2	23.6	24.0	240.0	0.0	797.8	277.1	80.3	39.9
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	0.0	23.2	7.3	33.6	0.9	10.0	45.9	24.9	178.7	10.4
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	146.5	640.6	720.3	311.6	575.6	649.1	570.0	1139.0	1482.4	1772.7
Other Flatfish	156.0	48.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	159.7
TOTAL FLATFISH	719.9	1050.3	1471.5	884.5	840.5	936.7	1441.9	1483.3	1764.5	2016.2
Skates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	192.3	5.0	63.0	49.9	0.5	176.9	1.5	0.5	0.5	0.5
Red King Crab	0.0	0.5	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.5
Dungeness Crab	0.9	0.0	0.0	0.0	0.0	0.9	0.0	7.7	4.5	6.4
Shrimp spp.	0.0	1.5	1.4	1.4	0.0	0.0	0.0	0.0	0.0	1.4
Scallop	0.9	0.0	0.0	0.0	38.1	0.5	12.6	2.3	0.5	0.0
Other Inverts	135.6	139.6	215.0	615.5	621.4	497.6	274.2	142.0	46.3	97.5
TOTAL INVERTS	329.8	146.7	279.4	667.2	660.0	675.9	288.8	152.4	51.7	106.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1499.6	1625.4	1981.3	1849.3	1570.4	2215.8	1940.4	1660.6	2096.1	2230.8

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Appendix C. (page 29 of 43)

Haul	281	282	283	284	285	286	287	288	289	290
Location	PAVLOF/V									
Month/Day/Year	08/12/90	08/12/90	08/12/90	08/12/90	08/12/90	08/12/90	08/12/90	08/12/90	08/12/90	08/13/90
Longitude Start	161 27.2	161 28.6	161 33.8	161 34.3	161 37.0	161 36.8	161 32.9	161 35.8	161 31.8	161 38.8
Latitude Start	55 35.3	55 36.1	55 34.6	55 32.2	55 31.9	55 29.3	55 29.8	55 27.3	55 28.1	55 27.4
Heading, Degrees	27	245	180	180	170	205	187	48	0	196
Average Depth (m)	26	22	20	35	35	75	57	79	35	97
Duration (min)	22	24	22	24	22	23	23	24	21	23
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1316.8	1892.0	1567.6	1276.4	858.7	2751.1	1895.1	1338.1	1621.6	1882.4
-----KILOGRAMS / 1.85 KILOMETER-----										
Pollock	46.7	20.9	5.4	5.4	6.8	502.6	64.9	60.3	0.5	181.0
Pacific Cod	43.1	46.7	35.4	191.0	25.4	344.3	2.3	19.5	7.7	70.3
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
Sculpins	12.7	0.0	63.5	0.0	9.5	0.0	0.0	0.0	0.0	3.2
Other Roundfish	0.0	1.4	8.2	1.4	0.9	0.0	0.0	2.3	9.5	15.4
TOTAL ROUNDFISH	102.5	68.9	112.5	197.8	42.6	846.9	67.1	82.1	19.5	269.9
Arrowtooth Flndr	2.7	0.0	0.0	3.2	1.4	13.2	0.0	12.2	17.7	21.3
Flathead Sole	7.7	20.4	4.1	9.5	13.2	52.2	30.4	290.3	3.6	603.3
Rock Sole	0.0	47.6	413.7	31.8	193.7	8.6	10.4	9.5	67.1	62.6
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	62.6	75.8	116.6	107.0	7.3	20.9	28.6	22.7	81.2	96.6
Starry Flndr	0.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	868.2	1321.8	707.6	651.8	491.7	1524.5	1541.8	387.4	956.2	530.7
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.3	0.0	50.8
TOTAL FLATFISH	941.2	1465.6	1241.9	803.3	731.2	1619.3	1611.2	758.4	1125.8	1365.3
Skates	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.0	0.0	0.0	0.0	0.5	6.8	0.9	2.3	0.5	12.7
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	1.4	0.5	0.0	0.5	0.5	0.0	29.5	0.5	7.3	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	0.9	1.8	0.0	0.0	0.0	5.0
Scallop	0.0	0.0	0.0	0.0	0.9	0.0	1.4	0.0	2.7	0.0
Other Inverts	271.7	344.7	213.2	274.0	83.0	274.9	186.4	494.9	465.8	229.5
TOTAL INVERTS	273.1	345.2	213.2	275.3	84.8	284.9	216.8	497.6	476.3	247.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1316.8	1892.0	1567.6	1276.4	858.7	2751.1	1895.1	1338.1	1621.6	1882.4

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Haul	291	292	293	294	295	296	297	298	299	300
Location	PAVLOF/V	PAVLOF/V	PAVLOF/V	PAVLOF/V	PAVLOF/V	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER
Month/Day/Year	08/13/90	08/13/90	08/13/90	08/13/90	08/13/90	08/14/90	08/14/90	08/14/90	08/14/90	08/14/90
Longitude Start	161 40.8	161 40.8	161 17.3	161 18.1	161 14.1	160 52.2	160 53.2	160 54.7	160 55.4	160 56.2
Latitude Start	55 26.2	55 24.5	55 16.5	55 16.3	55 16.7	55 27.3	55 30.1	55 29.5	55 27.1	55 23.7
Heading, Degrees	185	200	254	69	269	175	185	180	206	0
Average Depth (m)	84	104	71	73	82	59	37	46	101	121
Duration (min)	23	23	24	22	18	23	24	23	23	23
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	22	1	1	1	1	1	1	1
Tow Catch (kg)	1761.8	1378.9	0.0	945.3	783.4	1504.6	444.5	1211.1	1367.6	2690.3
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	382.4	273.1	0.0	22.7	71.7	0.0	0.9	0.0	155.1	833.7
Pacific Cod	29.5	76.7	0.0	11.3	0.0	37.2	12.7	26.8	34.5	139.3
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	13.6	38.1	0.0	88.9	9.1	39.9	24.0	71.2	31.8	83.5
Other Roundfish	20.4	22.7	0.0	9.5	0.0	1.8	24.5	1.4	4.5	13.2
TOTAL ROUNDFISH	445.9	410.5	0.0	132.5	80.7	78.9	62.1	107.5	225.9	1069.6
Arrowtooth Flndr	153.8	131.5	0.0	254.5	560.6	75.8	10.4	20.9	51.7	200.0
Flathead Sole	768.8	313.9	0.0	108.9	27.2	15.9	0.9	8.2	74.4	333.4
Rock Sole	79.4	0.0	0.0	0.0	0.0	559.7	93.0	125.6	162.4	466.8
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	46.3	0.0	0.0	4.1	8.2	117.9	16.3	183.3	8.2	36.3
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	219.5	313.9	0.0	283.5	39.0	176.0	111.6	511.7	567.9	433.6
Other Flatfish	0.0	0.0	0.0	0.0	0.0	25.4	112.0	112.9	0.0	49.9
TOTAL FLATFISH	1267.8	759.3	0.0	650.9	635.0	970.7	344.3	962.5	864.6	1520.0
Skates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.8	72.6	25.4
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	20.4	38.6	0.0	7.7	59.0	0.5	0.5	0.5	0.5	10.0
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.5	0.0	0.0	0.0	0.0	4.5	0.0	9.1	62.6	0.5
Shrimp spp.	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	0.0	0.0	0.0	3.6	7.3	14.5	0.9	0.9	5.4	27.7
Other Inverts	24.5	167.8	0.0	150.6	1.4	435.5	36.7	45.8	136.1	37.2
TOTAL INVERTS	48.1	209.1	0.0	161.9	67.6	455.0	38.1	56.2	204.6	75.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1761.8	1378.9	0.0	945.3	783.4	1504.6	444.5	1211.1	1367.6	2690.3

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Haul	301	302	303	304	305	306	307	308	309	310
Location	BEAVER									
Month/Day/Year	08/14/90	08/14/90	08/15/90	08/15/90	08/15/90	08/15/90	08/15/90	08/15/90	08/15/90	08/15/90
Longitude Start	160 36.8	160 37.4	160 44.2	160 35.8	160 34.0	160 34.3	160 33.3	160 29.2	160 29.5	160 36.0
Latitude Start	55 29.2	55 31.4	55 32.6	55 31.6	55 29.0	55 27.2	55 25.8	55 25.7	55 25.8	55 24.4
Heading, Degrees	180	168	107	148	342	90	90	35	35	287
Average Depth (m)	110	99	26	91	80	137	132	132	133	59
Duration (min)	23	23	23	23	21	17	23	25	13	22
Distance Fished (km)	1.0	1.0	1.0	1.0	0.9	0.7	1.0	1.0	0.5	1.0
Performance	1	1	1	1	1	1	1	23	1	1
Tow Catch (kg)	869.5	1600.3	1102.7	997.9	855.3	447.1	428.2	0.0	772.0	1042.4
KILOGRAMS / 1.85 KILOMETER										
Pollack	22.7	386.5	22.2	272.6	6.0	77.8	123.8	0.0	263.1	2.7
Pacific Cod	19.5	27.2	6.8	39.5	35.3	9.1	13.6	0.0	125.2	707.2
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thornyhead Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	7.7	0.0	25.9	24.0	0.0	27.2	0.0	0.0	0.0	7.3
Other Roundfish	12.2	0.9	0.9	15.4	0.5	0.0	0.0	0.0	0.0	0.5
TOTAL ROUNDFISH	62.1	414.6	55.8	351.5	41.8	114.0	137.4	0.0	388.3	717.6
Arrowtooth Flndr	191.4	143.3	34.5	13.6	155.7	151.6	150.6	0.0	90.7	55.8
Flathead Sole	308.9	364.2	86.2	136.1	40.8	151.6	85.3	0.0	205.9	9.1
Rock Sole	0.0	0.0	34.5	2.7	15.6	0.0	0.0	0.0	0.0	135.2
Rex Sole	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	7.3	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	29.5	23.6	27.7	5.4	19.7	0.0	10.9	0.0	0.0	18.6
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	104.8	518.9	525.7	306.6	431.9	16.8	24.5	0.0	19.1	49.4
Other Flatfish	0.0	66.2	64.4	11.8	54.4	0.0	0.0	0.0	0.0	7.3
TOTAL FLATFISH	634.6	1116.3	772.9	476.3	719.7	320.1	271.3	0.0	323.0	275.3
Skates	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	95.3	52.2	2.7	1.4	0.5	7.1	9.5	0.0	9.1	0.5
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	8.6	5.4	113.9	79.6	0.6	0.0	0.0	0.0	0.9
Shrimp spp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scallop	1.8	0.0	0.9	2.3	3.0	0.6	0.5	0.0	0.0	0.0
Other Inverts	75.8	2.3	264.9	52.6	10.6	4.5	9.5	0.0	51.7	48.1
TOTAL INVERTS	172.8	63.0	274.0	170.1	93.7	13.0	19.5	0.0	60.8	49.4
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	869.5	1600.3	1102.7	997.9	855.3	447.1	428.2	0.0	772.0	1042.4

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Haul	311	312	313	314	315	316	317	318	319	320
Location	W.NAGAI	W.NAGAI	W.NAGAI	W.NAGAI	W.NAGAI	BEAVER	BEAVER	STEPOVAK	STEPOVAK	STEPOVAK
Month/Day/Year	08/17/90	08/17/90	08/17/90	08/17/90	08/18/90	08/18/90	08/18/90	08/18/90	08/18/90	08/19/90
Longitude Start	160 22.4	160 19.0	160 3.5	159 59.0	160 9.8	160 26.0	160 18.1	160 9.4	160 0.2	159 54.9
Latitude Start	55 13.0	55 8.1	55 8.9	55 2.0	55 16.9	55 27.6	55 34.0	55 33.7	55 33.0	55 41.9
Heading, Degrees	353	35	321	330	330	33	95	270	275	353
Average Depth (m)	194	183	73	79	141	172	188	181	172	117
Duration (min)	14	25	27	27	23	24	26	24	25	26
Distance Fished (km)	0.6	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1327.5	1439.3	743.4	627.3	3434.7	348.8	1667.0	454.5	244.5	843.2
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	370.4	340.2	54.9	22.7	2317.4	29.0	453.6	57.2	11.3	383.3
Pacific Cod	71.8	90.3	53.5	29.9	226.3	75.8	97.5	44.9	0.0	13.6
Pac Ocean Perch	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.1	2.3	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	1.8	0.0	5.4	1.8	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	42.3	26.3	20.0	98.0	0.0	39.9	0.0	0.0	0.0	11.3
Other Roundfish	0.0	4.5	2.3	1.8	0.0	0.5	3.6	0.5	0.5	0.0
TOTAL ROUNDFISH	484.6	461.8	130.6	152.4	2543.7	147.0	556.1	112.0	15.9	408.2
Arrowtooth Flndr	551.9	561.1	84.4	101.6	760.5	85.7	385.6	201.4	39.0	217.7
Flathead Sole	137.6	119.3	174.2	137.0	52.9	48.1	260.8	68.0	59.9	166.0
Rock Sole	40.8	0.0	5.0	66.7	26.7	1.4	0.0	0.0	0.0	0.0
Rex Sole	2.3	0.0	0.0	0.0	0.0	2.7	0.0	0.0	3.6	0.0
Dover Sole	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	17.4	79.4	23.1	17.7	45.4	0.0	11.3	0.0	0.0	11.8
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	129.3	63.5	0.0	5.9	0.0	0.0	0.0	29.9
Other Flatfish	0.0	0.0	15.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	749.9	770.2	431.8	391.5	885.5	143.8	657.7	269.4	102.5	425.5
Skates	43.8	2.3	0.0	0.0	0.0	0.0	9.5	7.3	0.0	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	2.3	3.2	13.2	1.4	0.5	19.1	32.2	2.3	1.8	1.8
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	0.0	0.9	0.0	0.0	0.0	0.5	0.9	0.5	0.0	0.0
Scallop	0.0	1.4	65.8	1.4	1.5	0.5	0.5	0.0	0.5	4.5
Other Inverts	49.9	199.6	102.1	80.7	3.5	38.1	410.1	63.0	123.8	3.2
TOTAL INVERTS	49.1	205.0	181.0	83.5	5.5	58.1	443.6	65.8	126.1	9.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1327.5	1439.3	743.4	627.3	3434.7	348.8	1667.0	454.5	244.5	843.2

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Haul	321	322	323	324	325	326	327	328	329	330
Location	STEPOVAK	STEPOVAK	STEPOVAK	STEPOVAK	STEPOVAK	STEPOVAK	IVANOF	IVANOF	IVANOF	IVANOF
Month/Day/Year	08/19/90	08/19/90	08/19/90	08/19/90	08/19/90	08/19/90	08/20/90	08/20/90	08/20/90	08/20/90
Longitude Start	159 50.8	159 47.8	159 46.0	159 45.7	159 55.6	159 51.8	159 29.3	159 25.3	159 25.6	159 25.4
Latitude Start	55 45.0	55 48.6	55 48.6	55 45.8	55 38.5	55 38.4	55 48.5	55 45.9	55 43.5	55 38.2
Heading, Degrees	60	181	180	0	355	0	350	250	15	17
Average Depth (m)	119	112	112	123	130	130	69	86	101	110
Duration (min)	24	25	25	25	23	23	27	27	26	26
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	925.3	1067.8	1004.7	836.0	1248.8	1264.6	2685.3	1389.4	556.6	626.9
--KILOGRAMS/ 1.85 KILOMETER--										
Pollock	140.6	348.4	408.7	125.6	610.1	837.3	64.4	201.4	57.6	1.8
Pacific Cod	38.1	34.5	22.7	18.6	15.4	16.3	59.4	11.3	0.0	0.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfsh	0.0	0.0	0.0	0.5	1.8	6.8	0.0	0.9	5.9	0.0
Thornyhead Rkfsh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.9	0.9	34.9	0.0	0.0	105.2	0.9	27.2	0.0
Other Roundfish	0.0	0.9	1.8	0.0	0.0	0.0	2.3	1.8	0.0	0.9
TOTAL ROUND FISH	178.7	384.7	434.1	179.6	627.3	860.5	231.3	216.4	90.7	2.7
Arrowtooth Flndr	332.9	255.8	252.7	139.7	223.2	279.0	210.5	251.7	67.1	313.4
Flathead Sole	249.9	291.2	297.1	321.1	171.9	36.3	968.9	483.1	180.1	100.7
Rock Sole	9.5	0.0	0.0	0.0	0.0	0.0	26.3	0.0	0.0	0.0
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	8.6	50.3	4.1	59.0	60.8	60.8	15.4	12.7	0.0	23.6
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	64.0	45.4	0.0	63.0	38.6	0.0	1011.1	78.0	58.5	52.2
Other Flattish	15.9	0.0	0.0	14.1	68.9	0.0	0.0	0.0	41.7	0.0
TOTAL FLATFISH	680.8	642.7	553.8	596.9	563.4	376.0	2232.2	825.5	348.4	489.9
Skates	2.3	0.0	3.2	0.0	0.0	0.0	0.0	83.0	0.0	51.3
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.9	5.0	1.8	1.4	13.2	7.3	220.9	2.3	3.2	3.2
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Shrimp spp.	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0
Scallop	9.5	5.9	0.5	0.5	1.4	0.5	0.5	16.3	5.4	0.5
Other Inverts	53.1	28.6	11.3	57.6	43.5	19.5	0.0	244.9	108.9	79.4
TOTAL INVERTS	63.5	40.4	13.6	59.4	58.1	28.1	221.8	264.4	117.5	83.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	925.3	1067.8	1004.7	836.0	1248.8	1264.6	2685.3	1389.4	556.6	626.9

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Haul	331	332	333	334	335	336	337	338	339	340
Location	IVANOF	IVANOF	IVANOF	MITROFAN	MITROFAN	MITROFAN	MITROFAN	MITROFAN	MITROFAN	CHIGNIK
Month/Day/Year	08/20/90	08/20/90	08/20/90	08/21/90	08/21/90	08/21/90	08/21/90	08/21/90	08/21/90	08/22/90
Longitude Start	159 13.6	159 7.3	158 58.0	158 50.8	158 46.7	158 34.5	158 35.3	158 35.1	158 38.3	158 18.2
Latitude Start	55 52.2	55 53.5	55 51.2	55 56.9	55 55.2	55 55.8	55 59.8	56 7.7	56 3.7	56 11.3
Heading, Degrees	180	75	230	125	305	0	340	220	186	30
Average Depth (m)	66	77	123	137	139	99	165	155	165	55
Duration (min)	26	25	25	24	26	25	24	25	24	23
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	461.3	1267.8	310.7	901.3	213.2	815.6	806.5	1138.1	935.8	895.6
-KILOGRAMS/ 1.85 KILOMETER-										
Pollack	26.8	582.0	61.2	577.0	43.5	0.0	176.0	43.5	254.0	26.2
Pacific Cod	9.1	10.9	3.2	75.3	10.4	75.8	36.3	34.9	100.7	0.0
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.5	0.0	0.0	0.0	4.5	2.3	0.9	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	0.0	0.0	20.9	0.0	0.0	0.0	4.1	0.0	0.0
Other Roundfish	2.3	1.8	0.9	0.0	0.0	0.9	13.6	2.7	8.2	0.5
TOTAL ROUNDFISH	38.1	594.7	65.8	673.1	54.0	76.7	230.4	89.4	363.8	26.7
Arrowtooth Flndr	84.4	163.3	140.2	62.6	59.0	158.8	152.4	198.2	169.2	42.3
Flathead Sole	70.3	113.4	49.4	97.5	36.3	21.8	298.9	696.7	269.4	101.3
Rock Sole	6.4	12.2	0.0	0.0	0.0	81.2	0.0	0.0	0.0	0.0
Rex Sole	0.0	1.8	0.0	1.8	0.5	2.3	0.0	0.0	0.0	1.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0	0.0
Pac Halibut	13.2	46.3	0.0	20.0	5.0	290.3	47.2	0.0	0.0	1.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	98.4	81.6	12.2	25.9	0.0	0.0	0.0	35.8	0.0	84.7
Other Flatfish	27.2	0.0	0.0	0.0	0.0	2.3	0.0	10.0	0.0	0.0
TOTAL FLATFISH	299.8	418.7	201.9	207.7	100.7	569.7	498.5	940.8	438.6	230.3
Skates	31.3	125.2	0.0	9.1	31.3	38.1	1.8	0.0	0.0	96.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.9	0.5	0.5	0.5	0.9	0.5	49.0	101.2	28.6	0.5
Red King Crab	3.2	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0
Dungeness Crab	6.8	15.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	479.8
Shrimp spp.	0.5	0.0	0.0	1.4	0.5	0.5	0.0	2.3	1.4	0.0
Scallop	49.9	68.5	0.9	0.5	0.5	4.5	0.0	0.0	0.0	0.0
Other Inverts	30.8	44.5	41.3	9.1	25.4	125.6	26.3	3.6	103.4	61.5
TOTAL INVERTS	92.1	129.3	43.1	11.3	27.2	131.1	75.8	108.0	133.4	541.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	461.3	1267.8	310.7	901.3	213.2	815.6	806.5	1138.1	935.8	895.6

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Haul	341	342	343	344	345	346	347	348	349	350
Location	CHIGNIK									
Month/Day/Year	08/22/90	08/22/90	08/22/90	08/22/90	08/23/90	08/23/90	08/23/90	08/23/90	08/23/90	08/24/90
Longitude Start	158 19.8	158 16.5	158 13.2	158 10.8	158 9.3	158 2.3	158 6.3	158 10.4	158 12.3	158 20.1
Latitude Start	56 12.9	56 13.4	56 13.6	56 14.9	56 15.0	56 23.1	56 23.9	56 24.0	56 24.8	56 25.0
Heading, Degrees	85	50	42	60	70	320	270	300	90	90
Average Depth (m)	71	75	93	101	124	196	187	135	159	93
Duration (min)	26	24	25	26	18	26	26	25	25	18
Distance Fished (km)	1.0	1.0	1.0	1.0	0.7	1.0	1.0	1.0	1.0	0.7
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	929.9	2427.7	1034.2	925.3	1320.0	584.2	664.1	812.8	1191.1	1741.2
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	88.5	9.1	72.1	12.2	13.6	217.3	329.8	451.3	198.2	438.7
Pacific Cod	2.3	0.0	9.1	5.4	8.4	47.6	59.9	16.3	25.4	22.7
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	5.9	1.4	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.0	31.3	0.0	0.0	74.5	0.5	0.5	1.4	68.0	2.6
Other Roundfish	0.5	0.9	0.5	0.5	7.8	3.6	0.0	2.3	0.0	0.0
TOTAL ROUNDFISH	91.2	43.5	81.6	18.1	104.3	274.9	391.5	471.3	291.7	464.0
Arrowtooth Flndr	106.1	137.4	214.6	248.1	167.8	131.1	113.4	142.4	347.0	573.5
Flathead Sole	93.0	452.7	453.6	386.5	718.6	65.3	86.6	130.6	437.7	394.0
Rock Sole	0.0	5.9	0.0	0.0	5.2	0.0	0.0	0.0	14.5	75.8
Rex Sole	0.0	1.8	0.0	4.1	0.0	0.0	0.0	1.4	0.0	0.0
Dover Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6	0.0	11.0
Pac Halibut	13.6	39.9	30.8	2.3	12.3	47.6	6.8	11.3	8.6	47.3
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	66.2	72.6	7.7	0.0	0.0	0.0	0.0	0.0	0.0	101.1
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	279.0	710.3	706.7	640.9	904.0	244.0	206.8	309.4	807.9	1202.7
Skates	119.7	117.5	21.8	98.9	0.0	0.0	0.0	0.0	43.5	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.0	98.0	140.6	116.6	257.9	53.1	50.8	23.6	39.9	0.6
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	379.7	1455.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	55.7
Shrimp spp.	0.0	0.0	0.5	0.5	5.2	7.3	4.1	1.4	3.2	1.3
Scallop	5.4	1.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Inverts	54.9	1.8	77.1	50.3	48.6	5.0	10.9	2.7	5.0	16.8
TOTAL INVERTS	440.0	1556.3	224.1	167.4	311.7	65.3	65.8	27.7	48.1	74.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	929.9	2427.7	1034.2	925.3	1320.0	584.2	664.1	812.8	1191.1	1741.2

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Haul	351	352	353	354	355	356	357	358	359	360
Location	CHIGNIK	CHIGNIK	CHIGNIK	CHIGNIK	CHIGNIK	CHIGNIK	KUJULIK	KUJULIK	KUJULIK	KUJULIK
Month/Day/Year	08/24/90	08/24/90	08/24/90	08/24/90	08/24/90	08/24/90	08/25/90	08/25/90	08/25/90	08/25/90
Longitude Start	158 15.4	158 7.1	158 3.3	158 0.8	157 55.5	157 54.3	157 50.8	157 47.0	157 45.3	157 41.2
Latitude Start	56 25.1	56 30.0	56 24.7	56 24.7	56 23.6	56 24.9	56 35.3	56 36.9	56 31.5	56 33.0
Heading, Degrees	90	127	351	95	69	100	340	160	65	10
Average Depth (m)	161	95	177	192	210	172	29	73	91	82
Duration (min)	12	25	25	25	25	23	31	25	26	26
Distance Fished (km)	0.5	1.0	1.0	1.0	1.0	0.9	1.1	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	862.7	2347.8	1125.8	571.5	516.2	733.8	693.2	1494.1	959.8	1532.3
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	10.0	433.6	661.3	263.1	75.3	84.2	8.2	54.0	139.3	560.2
Pacific Cod	109.8	103.9	42.2	31.3	142.9	20.2	35.1	0.0	9.1	23.1
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	7.3	6.8	2.3	4.5	0.0	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.9
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	15.4	36.3	21.8	1.4	0.5	0.0	2.5	22.2	0.0	0.9
Other Roundfish	0.0	0.0	1.8	0.5	2.3	1.5	7.4	1.8	0.9	3.2
TOTAL ROUNDFISH	135.2	573.8	734.4	303.0	223.2	110.4	53.2	80.7	149.2	588.3
Arrowtooth Flndr	153.3	850.9	171.0	62.1	195.0	326.1	24.3	561.1	183.3	162.8
Flathead Sole	411.0	546.1	155.6	144.7	66.2	247.5	0.8	224.5	424.6	347.0
Rock Sole	0.0	72.1	0.0	0.0	0.0	7.6	129.1	0.0	0.0	43.1
Rex Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover Sole	0.0	36.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pac Halibut	0.0	50.3	22.2	0.0	0.0	15.1	72.2	31.8	10.0	100.2
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.6	0.0	0.0
Yellowfin Sole	0.0	136.5	0.0	0.0	0.0	0.0	194.6	2.3	0.0	142.4
Other Flatfish	0.0	40.4	0.0	0.0	0.0	0.0	35.1	0.0	0.0	0.0
TOTAL FLATFISH	564.3	1732.7	348.8	206.8	261.3	596.2	456.1	916.3	617.8	795.6
Skates	60.8	8.6	0.0	0.0	0.0	0.0	24.7	370.1	88.5	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	32.7	4.1	36.3	25.4	20.9	16.6	0.4	0.5	10.0	0.5
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	4.5	24.9	0.0	0.0	0.0	0.0	0.4	1.8	0.0	0.0
Shrimp spp.	6.4	1.8	4.1	2.7	1.8	1.5	0.8	0.0	1.4	0.0
Scallop	0.0	1.8	0.0	0.0	0.5	0.0	0.0	1.4	4.5	33.1
Other Inverts	59.0	0.0	2.3	33.6	8.6	9.1	157.5	123.4	88.5	114.8
TOTAL INVERTS	102.5	32.7	42.6	61.7	31.8	27.2	159.2	127.0	104.3	148.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	862.7	2347.8	1125.8	571.5	516.2	733.8	693.2	1494.1	959.8	1532.3

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Haul	361	362	363	364	365	366	367	368	369	370
Location	KUJULIK	KUJULIK	KUJULIK	W.KOD						
Month/Day/Year	08/25/90	08/25/90	08/25/90	08/27/90	08/27/90	08/27/90	08/27/90	08/27/90	08/27/90	08/28/90
Longitude Start	157 38.0	157 38.8	157 38.1	153 54.8	153 49.6	153 49.6	153 54.2	153 53.2	153 56.1	153 50.9
Latitude Start	56 33.1	56 31.0	56 31.9	57 29.4	57 24.6	57 24.2	57 33.3	57 35.2	57 38.5	57 39.7
Heading, Degrees	123	300	140	187	175	348	0	310	353	270
Average Depth (m)	101	102	117	144	90	101	106	128	187	146
Duration (min)	25	27	25	27	23	15	25	20	26	27
Distance Fished (km)	1.0	1.0	1.0	1.0	0.9	0.6	1.0	0.8	1.0	1.0
Performance	1	1	1	1	23	1	1	1	1	1
Tow Catch (kg)	1162.1	770.7	670.9	713.5	0.0	889.1	692.6	671.9	845.1	475.4
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	238.6	32.7	57.6	5.4	0.0	13.6	47.2	45.4	51.7	47.6
Pacific Cod	4.5	0.0	11.3	10.9	0.0	15.1	4.5	8.5	14.1	39.9
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	0.9	45.4	0.0	0.0	0.0	0.0	1.4	1.1	0.0	1.8
Other Roundfish	9.5	0.0	3.6	28.1	0.0	6.0	1.4	12.5	3.2	17.7
TOTAL ROUNDFISH	253.6	78.0	72.6	44.5	0.0	34.8	54.4	67.5	72.1	108.0
Arrowtooth Flndr	284.9	168.3	206.8	24.0	0.0	5.3	205.9	192.2	308.9	127.5
Flathead Sole	445.9	292.1	306.2	502.6	0.0	81.6	267.6	252.3	108.4	83.9
Rock Sole	19.1	0.0	0.0	0.0	0.0	2.3	0.0	0.0	4.1	0.0
Rex Sole	0.0	0.0	0.0	10.9	0.0	0.0	7.3	0.0	0.0	0.0
Dover Sole	5.9	0.0	0.0	0.0	0.0	0.0	9.1	8.5	0.0	0.0
Pac Halibut	33.1	0.0	17.2	11.3	0.0	0.0	9.5	0.0	84.8	0.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	13.6	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	29.9	3.4	0.0	0.0
TOTAL FLATFISH	802.4	460.4	530.3	548.9	0.0	92.2	529.3	456.4	506.2	211.4
Skates	78.9	145.6	15.9	79.8	0.0	0.0	24.5	37.4	54.0	38.6
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	1.4	6.8	32.2	2.3	0.0	176.9	71.2	10.2	67.1	60.3
Red King Crab	0.0	0.0	0.0	0.0	0.0	6.8	0.0	5.7	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	562.5	0.5	0.0	0.0	0.0
Shrimp spp.	1.4	2.3	1.8	0.5	0.0	0.8	0.5	1.1	0.5	0.9
Scallop	22.2	30.4	9.1	0.5	0.0	0.0	0.0	5.7	0.0	0.0
Other Inverts	2.3	47.2	9.1	37.2	0.0	15.1	12.2	87.9	145.2	56.2
TOTAL INVERTS	27.2	86.6	52.2	40.4	0.0	762.0	84.4	110.6	212.7	117.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1162.1	770.7	670.9	713.5	0.0	889.1	692.6	671.9	845.1	475.4

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Haul	371	372	373	374	375	376	377	378	379	380
Location	W.KOD									
Month/Day/Year	08/28/90	08/28/90	08/29/90	08/29/90	08/29/90	08/29/90	08/29/90	08/30/90	08/30/90	08/30/90
Longitude Start	153 44.1	153 42.0	153 22.9	153 31.0	153 32.2	153 31.9	153 32.0	153 34.0	153 32.8	153 28.4
Latitude Start	57 39.0	57 53.3	57 43.7	57 46.0	57 43.8	57 40.6	57 49.5	57 52.1	57 53.2	57 51.0
Heading, Degrees	285	102	0	0	5	340	169	120	166	290
Average Depth (m)	97	33	106	165	90	73	179	183	187	166
Duration (min)	25	19	26	27	24	27	29	26	27	28
Distance Fished (km)	1.0	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1657.9	545.6	1205.2	1029.2	1740.5	2108.3	638.7	823.7	679.9	890.9
KILOGRAMS/ 1.85 KILOMETER										
Pollock	94.8	0.0	272.6	182.8	281.7	230.0	135.2	240.4	205.0	357.0
Pacific Cod	20.4	0.0	5.0	41.3	17.2	9.5	39.5	98.0	44.5	15.4
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
Sablefish	2.7	0.0	1.8	0.9	0.9	1.8	0.0	0.0	0.0	0.0
Herring	0.0	0.0	0.0	0.0	0.5	2.3	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	7.7	0.0	0.0	0.0	25.4	1.4	1.8	2.3	1.4	6.8
Other Roundfish	15.0	1.3	64.9	58.5	0.9	52.2	14.5	16.3	18.1	16.8
TOTAL ROUND FISH	140.6	1.3	344.3	283.5	326.6	297.1	192.8	358.3	269.0	396.0
Arrowtooth Flndr	219.1	0.0	176.4	93.9	112.5	206.8	261.3	305.3	170.6	230.9
Flathead Sole	557.9	3.9	320.7	150.1	484.4	287.6	150.6	73.9	146.5	109.8
Rock Sole	0.0	273.5	0.0	0.0	59.0	0.0	0.0	0.0	0.0	0.0
Rex Sole	0.0	0.0	5.0	0.0	0.9	4.5	0.9	0.0	0.0	8.2
Dover Sole	0.0	0.0	1.8	0.0	5.4	0.0	3.2	0.0	0.0	0.0
Pac Halibut	30.8	40.8	12.7	11.3	68.5	74.8	0.0	12.2	0.0	0.0
Starry Flndr	0.0	140.6	0.0	0.0	0.0	63.0	0.0	0.0	0.0	0.0
Yellowfin Sole	144.7	0.0	90.7	0.0	327.0	322.1	0.0	0.0	0.0	0.0
Other Flatfish	328.9	0.0	18.1	46.7	129.3	40.4	0.0	0.0	0.0	0.0
TOTAL FLATFISH	1281.4	458.8	625.5	302.1	1187.1	999.3	415.9	391.5	317.1	348.8
Skates	37.2	0.0	0.0	15.9	0.0	10.0	0.0	4.5	6.8	0.0
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.9	0.0	203.2	383.7	9.1	328.4	18.1	51.3	50.8	125.6
Red King Crab	0.9	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0
Dungeness Crab	186.0	3.9	0.0	0.0	84.8	435.9	1.4	0.0	0.0	0.0
Shrimp spp.	0.9	0.0	0.9	0.5	0.0	0.0	1.8	5.0	5.4	16.3
Scallop	0.5	0.6	0.0	0.0	11.3	0.0	0.0	0.0	0.0	0.0
Other Inverts	9.5	81.0	31.3	43.5	121.6	17.2	8.6	13.2	30.8	4.1
TOTAL INVERTS	198.7	85.5	235.4	427.7	226.8	802.0	29.9	69.4	87.1	146.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1657.9	545.6	1205.2	1029.2	1740.5	2108.3	638.7	823.7	679.9	890.9

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Haul	381	382	383	384	385	386	387	388	389	390
Location	W.KOD									
Month/Day/Year	08/30/90	08/30/90	08/30/90	08/31/90	08/31/90	08/31/90	08/31/90	09/01/90	09/01/90	09/01/90
Longitude Start	153 27.1	153 23.6	153 12.4	153 13.5	153 17.7	153 8.3	153 19.1	153 10.5	153 18.0	153 19.0
Latitude Start	57 50.7	57 49.7	57 45.8	57 50.5	57 55.3	57 51.5	57 55.8	57 58.3	58 0.6	58 1.3
Heading, Degrees	120	130	12	345	140	308	310	300	188	270
Average Depth (m)	146	124	71	95	146	69	174	55	126	133
Duration (min)	28	17	27	18	25	27	26	5	19	25
Distance Fished (km)	1.0	0.6	1.0	0.6	1.0	1.0	1.0	0.2	0.7	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1210.2	1624.6	5433.2	1898.3	1188.9	3124.4	1034.7	1059.1	1901.9	1670.1
-----KILOGRAMS/ 1.85 KILOMETER-----										
Pollock	244.9	360.6	277.6	457.4	163.7	1070.0	134.3	2.3	972.0	313.0
Pacific Cod	92.5	0.0	15.9	12.1	29.5	0.0	23.1	47.6	97.2	49.9
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	0.0	0.0	1.8	0.0	5.9	0.0	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5
Sablefish	0.0	0.0	0.0	2.3	0.0	0.5	0.5	0.0	0.0	0.0
Herring	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	16.3	0.0	381.5	28.0	0.0	0.0	1.4	0.0	0.0	0.9
Other Roundfish	64.9	19.7	104.3	18.9	6.4	0.0	8.6	4.5	7.8	4.5
TOTAL ROUND FISH	418.7	391.6	779.7	518.6	201.4	1070.5	173.7	54.4	1077.6	368.8
Arrowtooth Flndr	273.5	191.3	0.0	160.3	415.0	225.0	367.0	106.6	386.2	391.5
Flathead Sole	331.1	700.8	2115.1	257.0	315.7	582.0	206.8	258.6	53.1	469.5
Rock Sole	0.0	0.0	415.9	0.0	0.0	450.4	0.0	113.4	0.0	0.0
Rex Sole	0.0	0.0	0.0	0.0	10.4	0.0	0.0	2.3	57.0	0.0
Dover Sole	0.0	116.4	0.0	8.3	5.4	93.9	32.2	2.3	261.8	205.5
Pac Halibut	11.8	0.0	136.5	9.1	34.0	105.2	9.5	43.1	4.5	36.3
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	45.4	1733.6	104.3	0.0	412.8	0.0	102.1	0.0	0.0
Other Flatfish	0.0	84.7	0.0	12.1	7.3	32.7	0.0	0.0	0.0	0.0
TOTAL FLATFISH	616.4	1138.5	4401.3	551.1	787.9	1901.9	615.5	628.2	762.7	1102.7
Skates	4.5	6.8	0.0	28.7	21.3	91.6	0.9	0.0	1.9	30.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	118.8	80.1	0.5	283.5	164.7	5.0	239.5	2.3	0.6	46.7
Red King Crab	0.0	0.0	0.0	285.0	0.0	0.5	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.8	230.4	223.8	0.0	34.5	0.9	0.0	0.0	0.0
Shrimp spp.	5.4	0.8	0.0	0.8	1.4	0.0	0.5	0.0	1.3	0.9
Scallop	0.0	0.0	0.5	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Other Inverts	46.3	6.0	20.9	6.8	12.2	20.4	3.6	371.9	57.7	120.2
TOTAL INVERTS	170.6	87.7	252.2	799.8	178.3	60.3	244.5	376.5	59.6	167.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	1210.2	1624.6	5433.2	1898.3	1188.9	3124.4	1034.7	1059.1	1901.9	1670.1

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Haul	391	392	393	394	395	396	397	398	399	400
Location	W.KOD	W.KOD	W.KOD	W.KOD	N.MAIN.	N.MAIN.	N.MAIN.	N.MAIN.	N.MAIN.	N.MAIN.
Month/Day/Year	09/01/90	09/01/90	09/01/90	09/12/90	09/12/90	09/12/90	09/13/90	09/13/90	09/13/90	09/13/90
Longitude Start	153 26.8	153 23.1	153 21.3	153 13.4	153 36.0	154 16.0	154 1.3	153 55.1	153 49.7	153 50.2
Latitude Start	58 2.0	58 58.6	57 59.0	58 7.7	58 13.1	58 17.7	58 18.1	58 14.9	58 14.7	58 10.2
Heading, Degrees	188	288	300	323	30	60	65	220	210	190
Average Depth (m)	73	238	60	117	181	112	117	227	201	198
Duration (min)	24	25	23	26	27	26	26	26	24	27
Distance Fished (km)	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	900.4	604.6	514.6	2527.4	1248.3	534.8	910.4	505.8	958.0	1165.3
<hr/> -----KILOGRAMS/ 1.85 KILOMETER-----										
Pollack	2.3	18.1	0.0	338.8	44.9	1.4	59.9	29.0	33.6	13.2
Pacific Cod	166.0	21.3	35.8	36.3	125.6	2.7	82.6	0.0	11.8	13.2
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.0	3.6	0.0	0.0	35.8	0.5	0.0	7.3	11.3	31.8
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.0	0.0	1.4	0.0	0.0	20.4	5.4	6.8
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	11.8	0.5	0.0	0.0	3.6	0.0	81.6	0.9	0.0	5.9
Other Roundfish	5.9	0.0	0.0	0.0	7.7	0.5	1.4	0.0	0.9	9.1
TOTAL ROUNDFISH	186.0	43.5	35.8	375.1	220.0	5.0	225.9	57.6	63.0	79.8
Arrowtooth Flndr	358.8	184.6	85.2	1200.2	358.3	7.7	177.8	310.3	565.6	500.3
Flathead Sole	8.2	154.2	30.7	282.6	131.1	156.9	129.7	14.5	85.7	131.1
Rock Sole	51.3	0.0	198.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rex Sole	15.0	3.2	0.5	0.0	0.0	0.0	13.2	0.0	1.4	3.2
Dover Sole	116.6	12.7	7.1	338.8	0.0	0.0	76.7	0.0	0.0	0.0
Pac Halibut	28.1	47.2	72.6	45.8	77.1	67.6	31.3	16.3	45.4	39.0
Starry Flndr	0.0	0.0	0.0	0.0	0.0	43.1	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	69.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	647.7	401.9	394.1	1867.5	566.5	275.3	428.6	341.1	698.1	673.6
Skates	4.5	42.2	30.2	133.4	6.8	0.0	141.1	28.6	45.4	12.2
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	0.5	68.0	1.5	55.8	53.1	119.3	64.9	35.4	45.4	56.7
Red King Crab	0.0	0.0	0.0	0.0	0.0	68.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	2.7	0.0	61.2	0.5	0.0	0.0	0.0
Shrimp spp.	0.0	0.0	0.0	0.0	5.4	0.5	10.9	2.3	17.2	3.2
Scallop	0.0	0.0	5.5	0.5	0.0	0.0	23.1	0.5	0.0	0.0
Other Inverts	61.7	49.0	47.4	92.5	396.4	5.4	8.6	40.4	88.9	339.7
TOTAL INVERTS	62.1	117.0	54.4	151.5	455.0	254.5	108.0	78.5	151.5	399.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	900.4	604.6	514.6	2527.4	1248.3	534.8	910.4	505.8	958.0	1165.3

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Haul	401	402	403	404	405	406	407	408	409	410
Location	N.MAIN.									
Month/Day/Year	09/13/90	09/13/90	09/14/90	09/15/90	09/15/90	09/15/90	09/15/90	09/15/90	09/15/90	09/15/90
Longitude Start	153 57.2	154 12.9	153 48.9	153 39.6	153 30.2	153 41.5	153 50.0	153 59.0	153 48.3	153 41.2
Latitude Start	58 10.2	58 9.0	58 18.4	58 18.1	58 23.4	58 22.9	58 24.7	58 25.8	58 27.1	58 27.8
Heading, Degrees	220	130	30	30	15	33	30	60	62	40
Average Depth (m)	212	99	201	176	179	172	133	95	101	139
Duration (min)	28	26	29	27	26	26	27	26	26	26
Distance Fished (km)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Performance	1	1	1	1	1	1	1	1	1	1
Tow Catch (kg)	1074.1	616.9	1134.9	992.9	467.2	791.5	502.6	681.8	720.3	616.0
-KILOGRAMS/ 1.85 KILOMETER-										
Pollock	26.8	47.2	29.9	6.8	25.4	12.2	32.7	61.7	54.9	148.3
Pacific Cod	0.9	4.5	0.9	3.6	15.9	6.8	21.3	10.4	16.3	74.8
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Rougheye Rkfish	18.6	0.5	2.3	0.0	0.5	0.0	0.0	0.5	0.0	0.0
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	5.4	2.3
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	1.4	22.7	0.0	0.0	2.7	0.5	0.5	0.9	0.5	0.0
Other Roundfish	0.0	0.5	0.9	3.6	12.7	1.4	4.1	0.9	2.7	2.3
TOTAL ROUNDFISH	47.6	75.3	34.9	14.5	57.2	20.9	59.0	74.4	79.8	227.7
Arrowtooth Flndr	221.8	183.7	429.6	553.8	244.5	450.9	231.3	47.6	73.5	185.5
Flathead Sole	125.6	122.5	46.3	58.5	8.2	54.4	91.2	83.9	61.7	54.0
Rock Sole	0.0	11.3	0.0	0.0	0.0	0.0	4.1	0.0	38.1	0.0
Rex Sole	0.0	3.2	12.7	2.7	0.5	12.2	0.9	0.0	5.9	2.7
Dover Sole	0.0	130.6	0.0	0.0	18.6	81.6	0.0	17.7	41.3	20.9
Pac Halibut	0.0	30.4	0.0	7.3	0.0	17.7	4.1	86.6	83.0	2.7
Starry Flndr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.8	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.1	135.2	0.0
TOTAL FLATFISH	347.5	481.7	488.5	622.3	271.7	616.9	331.6	358.8	438.6	265.8
Skates	3.6	32.2	13.6	1.4	77.1	27.2	10.9	128.8	76.7	8.6
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	24.5	0.5	72.6	31.8	44.5	64.4	26.8	2.3	2.3	41.7
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Shrimp spp.	185.1	0.5	6.4	2.3	2.3	1.4	14.5	0.9	0.9	13.6
Scallop	0.0	9.1	0.0	0.9	1.8	13.6	15.4	0.0	37.6	18.1
Other Inverts	465.8	17.7	518.9	319.8	12.7	47.2	42.2	114.3	39.0	40.4
TOTAL INVERTS	675.4	27.7	597.8	354.7	61.2	126.6	98.9	119.7	79.8	113.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.4	0.0
TOTAL CATCH (kg/1.85km)	1074.1	616.9	1134.9	992.9	467.2	791.5	502.6	681.8	720.3	616.0

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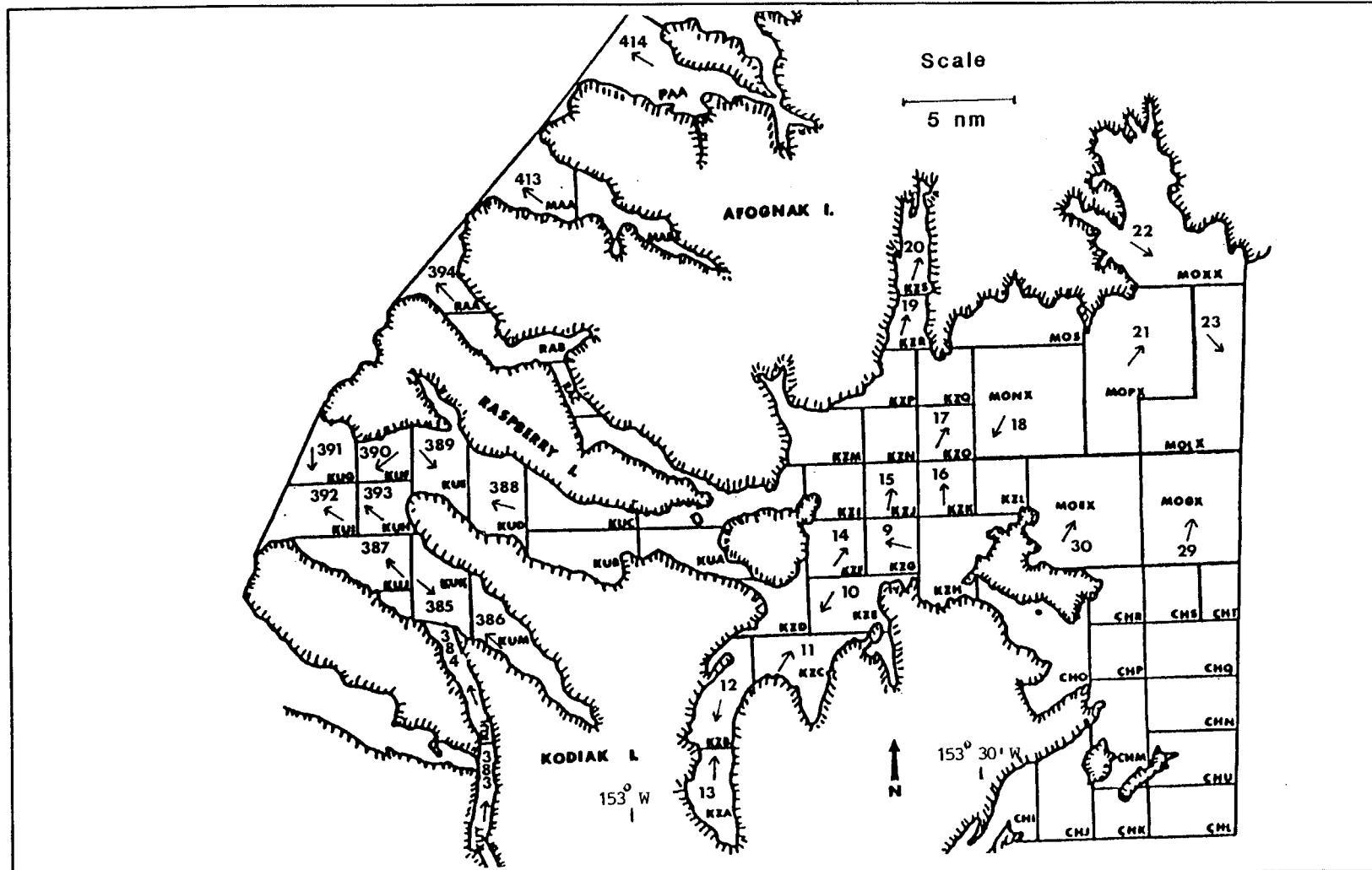
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Haul	411	412	413	414	415	416	417	418	419	420
Location	N.MAIN.	W.KOD	W.KOD	W.KOD	N.MAIN.	N.MAIN.	N.MAIN.	N.MAIN.	N.MAIN.	N.MAIN.
Month/Day/Year	09/15/90	09/16/90	09/16/90	09/16/90	09/17/90	09/17/90	09/17/90	09/17/90	09/17/90	09/17/90
Longitude Start	153 31.4	153 5.6	153 6.0	152 48.0	153 12.0	153 22.5	153 22.6	153 29.6	153 20.2	153 10.0
Latitude Start	58 27.7	58 12.7	58 12.7	58 17.7	58 28.5	58 29.6	58 33.4	58 33.3	58 37.8	58 38.0
Heading, Degrees	40	278	280	320	0	20	20	15	56	20
Average Depth (m)	148	132	137	132	170	172	146	115	128	174
Duration (min)	26	25	25	24	26	26	20	25	25	18
Distance Fished (km)	1.0	1.0	1.0	0.9	1.0	1.0	0.8	1.0	1.0	0.7
Performance	1	20	1	1	1	1	1	1	1	1
Tow Catch (kg)	694.5	0.0	1282.8	1917.7	661.8	725.8	1067.1	597.8	625.1	613.7
KILOGRAMS/ 1.85 KILOMETER										
Pollock	87.1	0.0	113.9	256.5	16.8	20.4	112.8	108.9	93.0	35.0
Pacific Cod	14.1	0.0	29.5	32.3	22.7	197.8	554.5	104.8	160.1	140.6
Pac Ocean Perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rougheye Rkfish	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Thornyhead Rkfh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	1.3
Sablefish	4.5	0.0	4.1	0.0	2.3	0.9	1.7	0.0	0.0	51.8
Herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpins	3.6	0.0	103.9	0.0	0.0	0.0	6.8	0.9	0.0	0.0
Other Roundfish	14.1	0.0	38.6	17.1	5.9	9.5	0.6	6.8	3.2	1.3
TOTAL ROUND FISH	123.8	0.0	289.8	305.9	47.6	231.8	676.4	221.4	256.3	239.8
Arrowtooth Flndr	279.9	0.0	341.1	288.3	363.8	244.5	258.0	94.3	121.6	261.8
Flathead Sole	41.3	0.0	138.3	747.4	64.4	13.2	1.1	59.0	95.3	4.5
Rock Sole	0.0	0.0	0.0	39.8	0.0	0.0	0.0	0.0	0.0	0.0
Rex Sole	0.9	0.0	13.6	0.0	6.8	0.5	6.8	0.5	9.1	0.0
Dover Sole	57.6	0.0	69.4	72.1	0.0	90.3	22.1	6.4	0.0	63.5
Pac Halibut	29.0	0.0	80.3	54.4	15.4	13.2	13.0	45.4	39.0	6.5
Starry Flndr	0.0	0.0	0.0	66.5	0.0	0.0	0.0	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Flatfish	0.0	0.0	12.2	0.0	0.0	0.0	0.0	51.3	9.1	0.0
TOTAL FLATFISH	408.7	0.0	655.0	1268.6	450.4	361.5	301.1	256.7	274.0	336.3
Skates	27.2	0.0	87.5	103.8	26.8	78.5	0.6	23.1	39.9	5.8
Spiny Dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0
Other Elasmobrh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanner Crab	95.7	0.0	247.7	126.5	22.7	22.7	22.1	25.9	10.9	13.0
Red King Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Dungeness Crab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shrimp spp.	8.6	0.0	2.3	1.0	0.9	3.6	6.8	0.5	0.5	1.9
Scallop	24.0	0.0	0.0	0.0	0.5	0.5	1.7	52.6	41.3	0.0
Other Inverts	6.4	0.0	0.5	111.9	112.9	27.2	58.4	9.5	1.8	16.8
TOTAL INVERTS	134.7	0.0	250.4	239.4	137.0	54.0	89.0	88.5	54.9	31.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH (kg/1.85Km)	694.5	0.0	1282.8	1917.7	661.8	725.8	1067.1	597.8	625.1	613.7

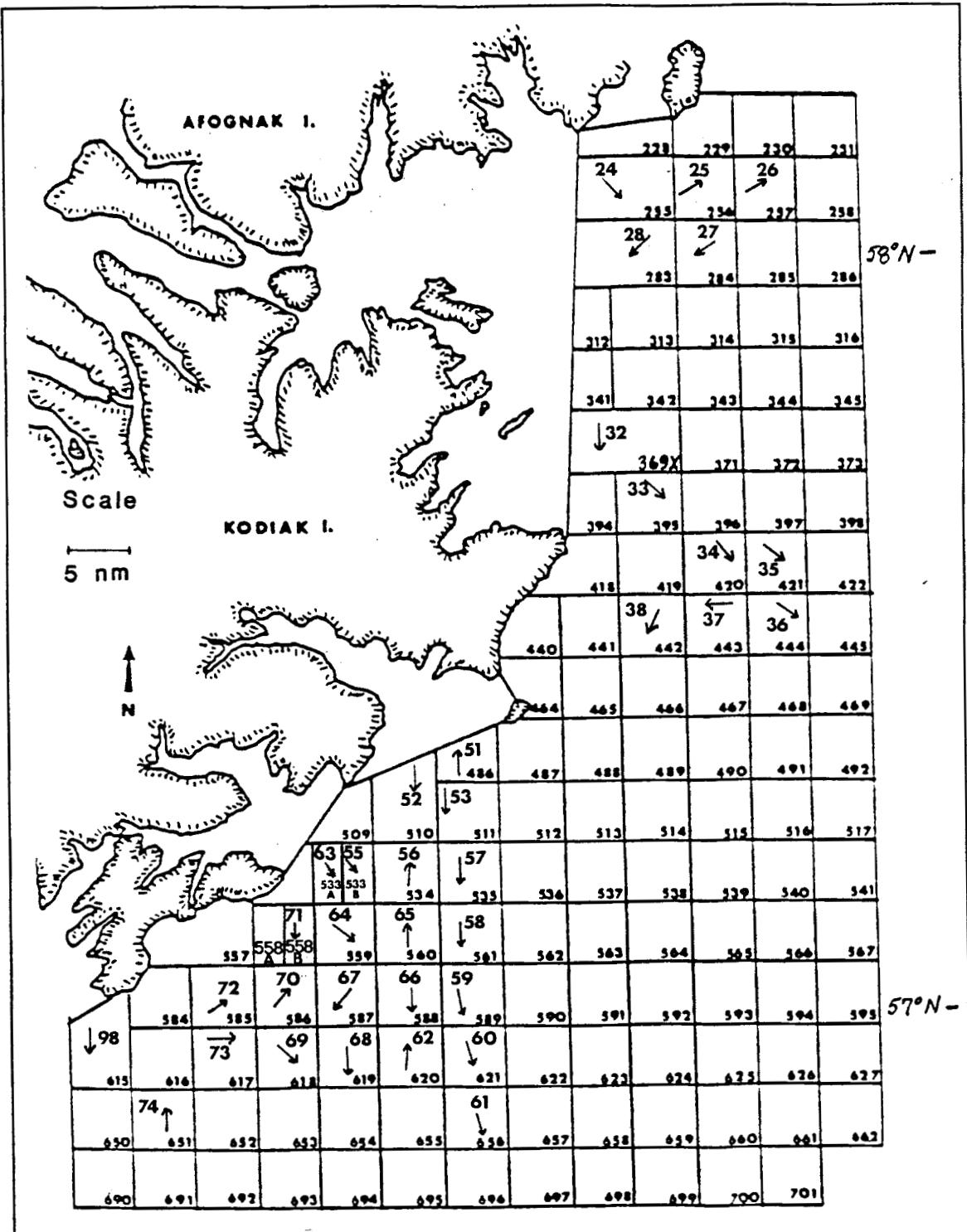
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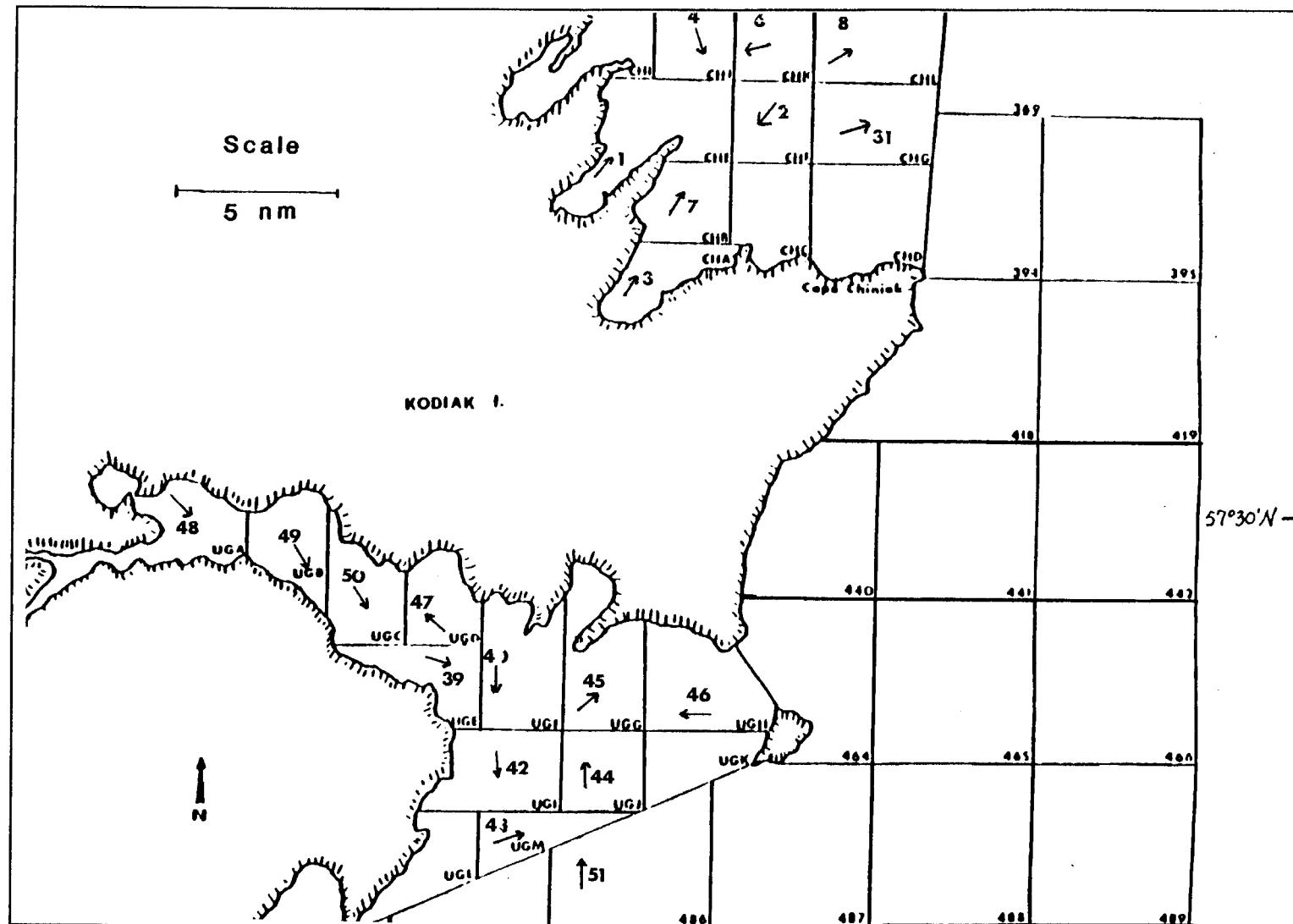
Haul	421	422	423
Location	N.MAIN.	N.MAIN.	N.MAIN.
Month/Day/Year	09/17/90	09/17/90	09/17/90
Longitude Start	153 13.8	153 12.7	153 2.1
Latitude Start	58 42.9	58 47.5	58 48.8
Heading, Degrees	20	0	180
Average Depth (m)	154	135	143
Duration (min)	26	26	25
Distance Fished (km)	1.0	1.0	1.0
Performance	1	1	1
Tow Catch (kg)	351.5	491.7	649.1
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-----KILOGRAMS/ 1.85 KILOMETER-----			
Pollock	18.6	24.9	38.6
Pacific Cod	5.0	83.0	7.7
Pac Ocean Perch	0.0	0.0	0.0
Rougheye Rkfish	0.0	0.0	6.8
Thornyhead Rkfh	0.0	0.0	0.0
Other Rockfish	0.0	0.0	0.0
Sablefish	0.9	0.0	1.4
Herring	0.0	0.0	0.0
Salmon	0.0	0.0	0.0
Sculpins	0.0	9.1	0.0
Other Roundfish	0.5	0.9	4.5
TOTAL ROUNDISH	24.9	117.9	59.0
Arrowtooth Flndr	43.5	45.4	404.2
Flathead Sole	29.0	130.2	1.8
Rock Sole	0.0	4.1	0.0
Rex Sole	7.7	6.8	0.0
Dover Sole	137.9	20.9	84.4
Pac Halibut	6.4	33.1	1.8
Starry Flndr	0.0	0.0	0.0
Yellowfin Sole	0.0	0.0	0.0
Other Flatfish	0.0	18.6	0.0
TOTAL FLATFISH	224.5	259.0	492.2
Skates	34.5	45.4	59.9
Spiny Dogfish	0.0	0.0	14.1
Other Elasmobrnh	0.0	0.0	0.0
Tanner Crab	29.0	30.8	5.4
Red King Crab	0.0	0.5	0.0
Dungeness Crab	5.4	1.4	0.0
Shrimp spp.	0.0	0.5	1.8
Scallop	1.4	0.0	5.9
Other Inverts	31.8	36.3	10.9
TOTAL INVERTS	67.6	69.4	24.0
Other	0.0	0.0	0.0
TOTAL CATCH (kg/1.85km)	351.5	491.7	649.1



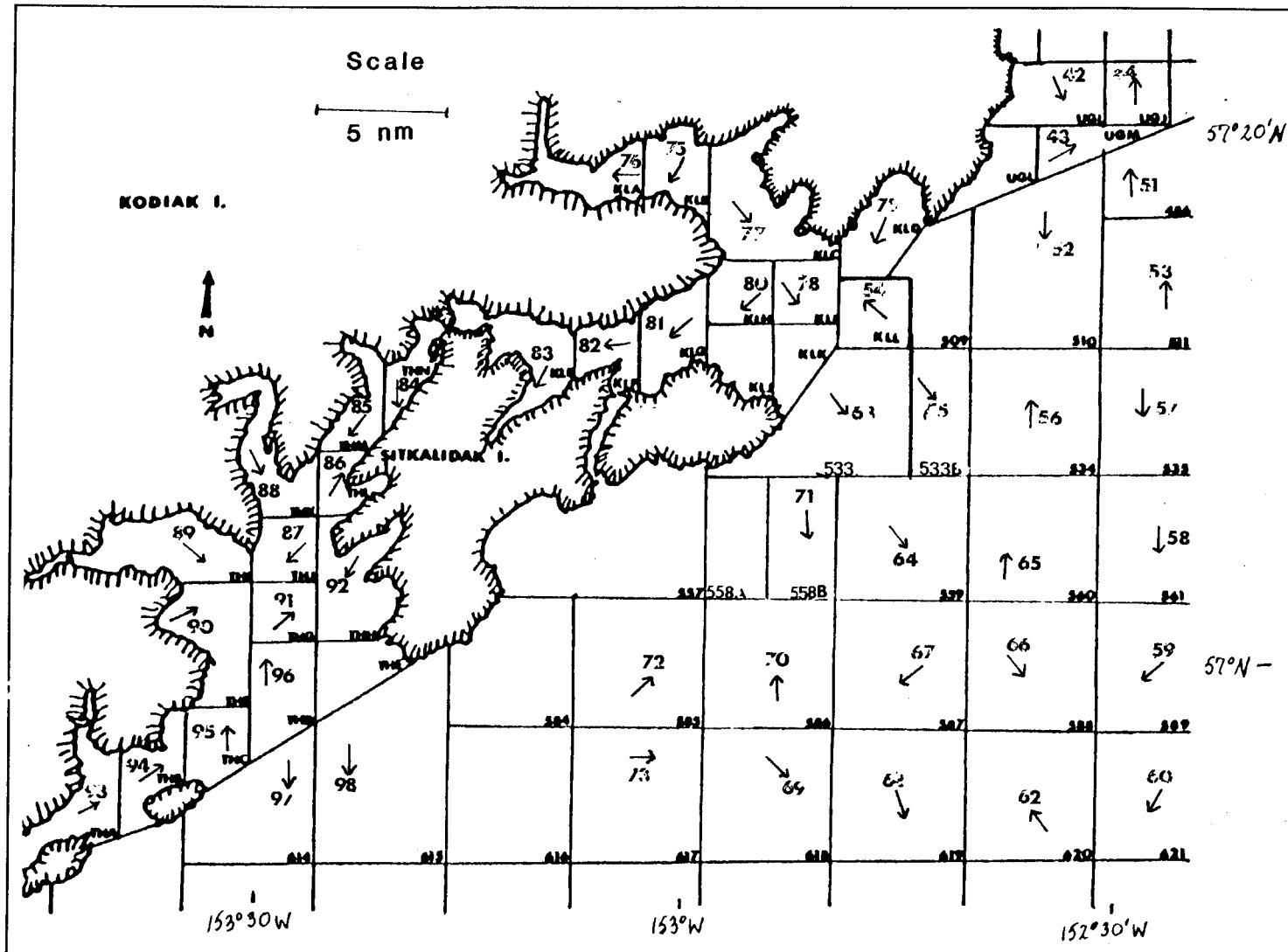
Appendix D.1 Station location and number designations and trawl haul (arrows) locations and numbers, north Kodiak Island and west Afognak Island: June, August, and September 1990.



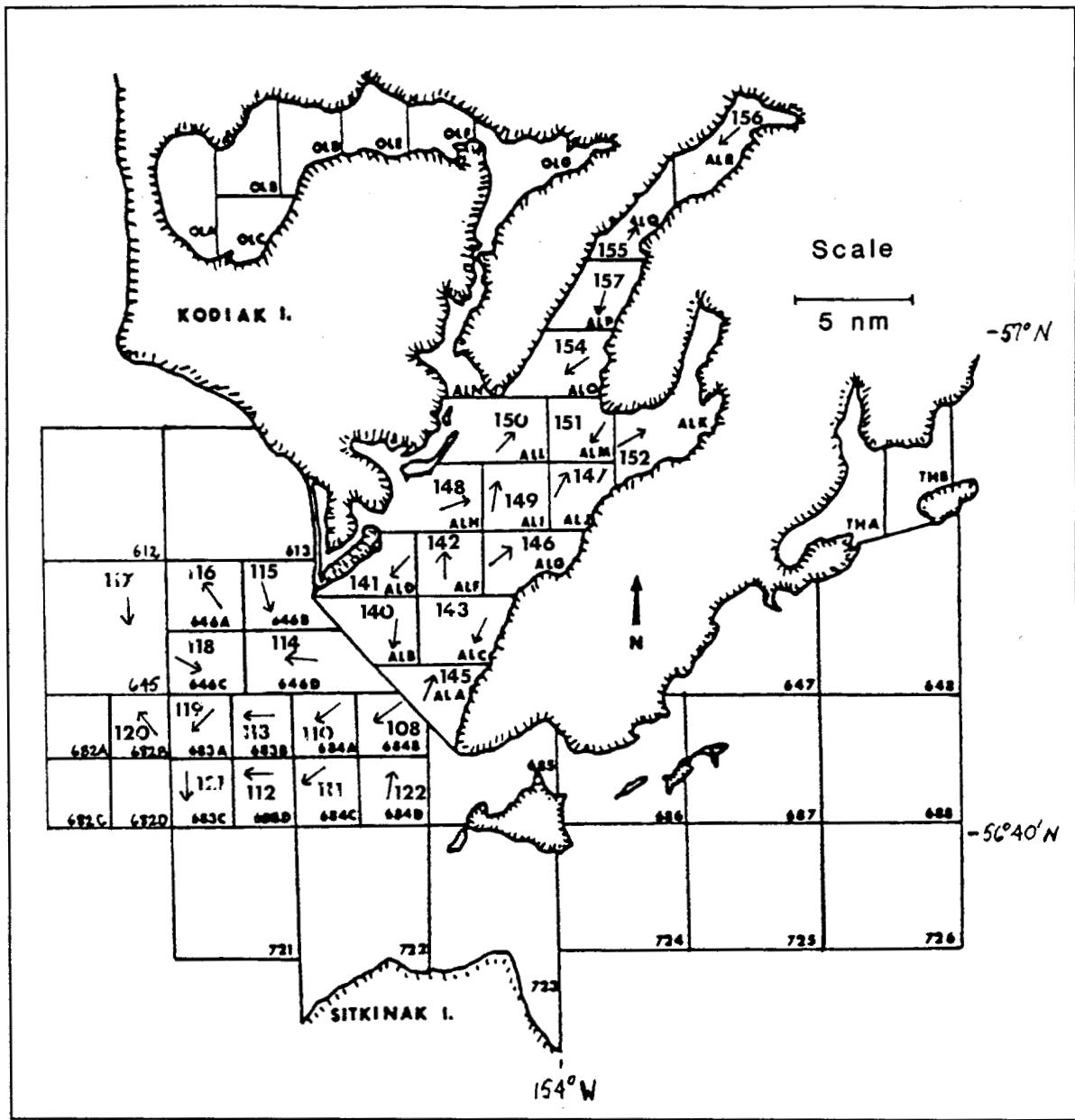
Appendix D.2 Station location and number designations and trawl haul (arrows) locations and numbers, offshore Marmot Bay, Chiniak Bay and Barnabas Gully in June 1990.



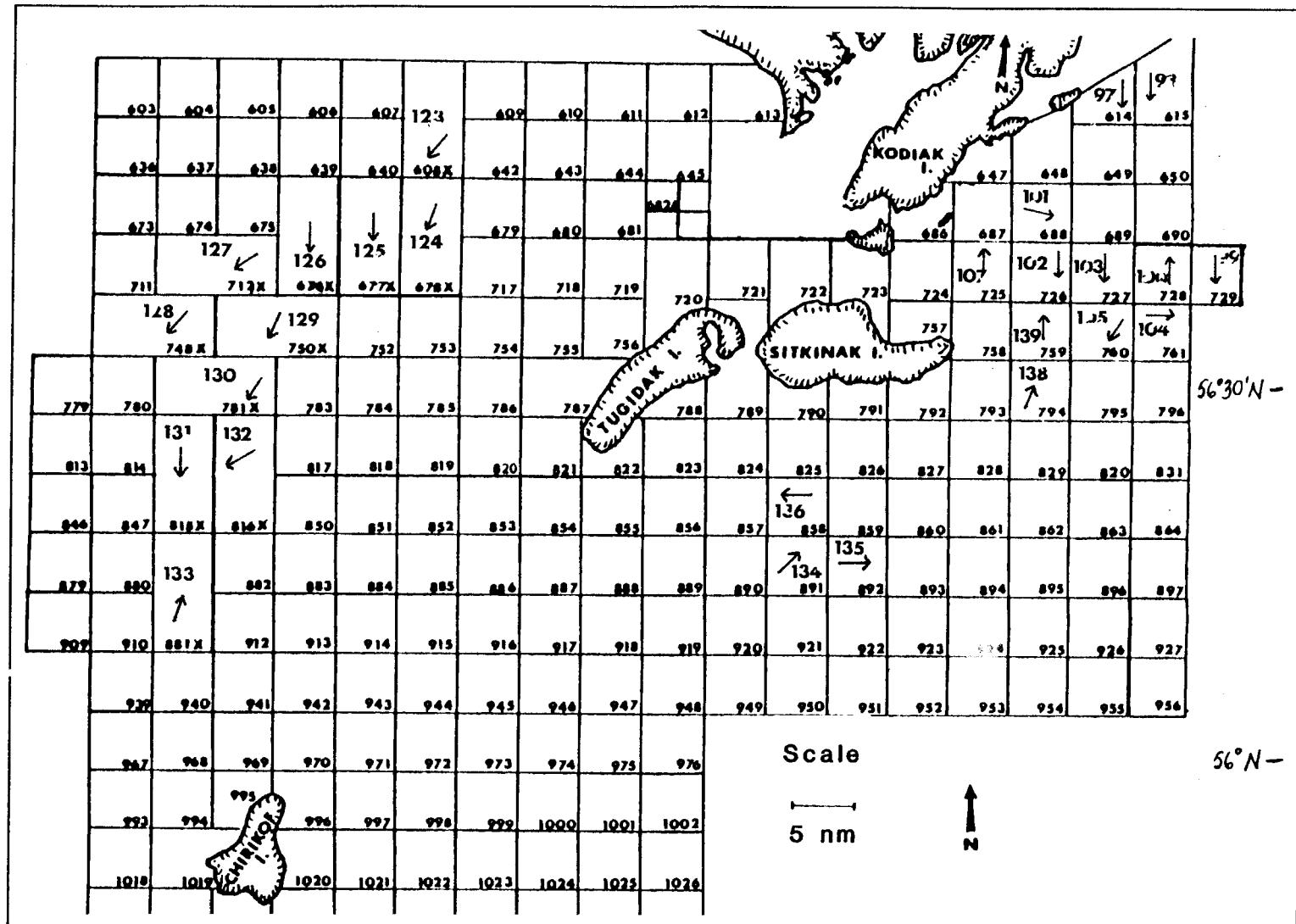
Appendix D.3 Station location and number designations and trawl haul (arrows) locations and numbers, Chiniak Bay and Ugak Bay: June 1990.



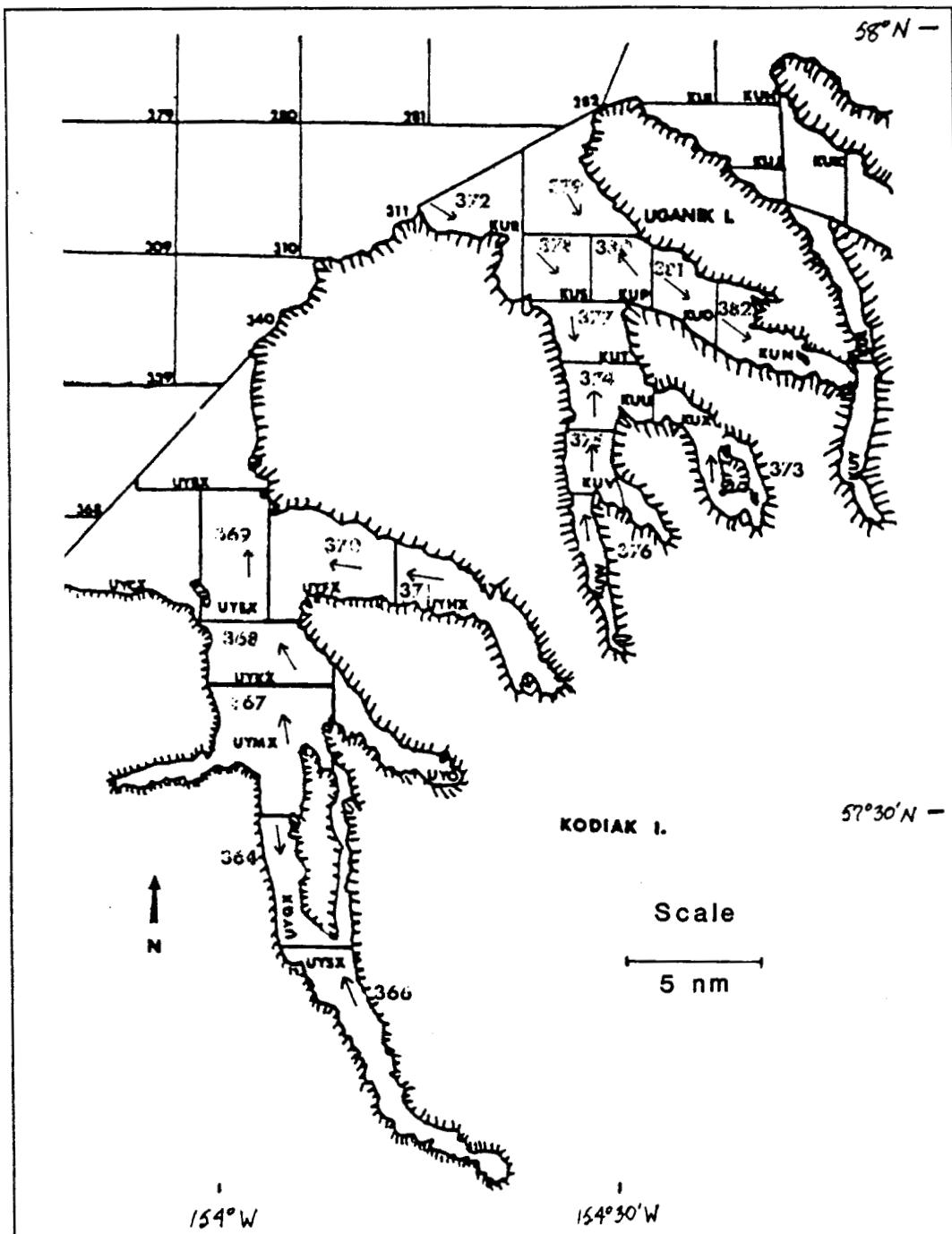
Appendix D.4 Station location and number designations and trawl haul (arrows) locations and numbers, Kiliuda Bay and South Sitkalidak Strait: June 1990.



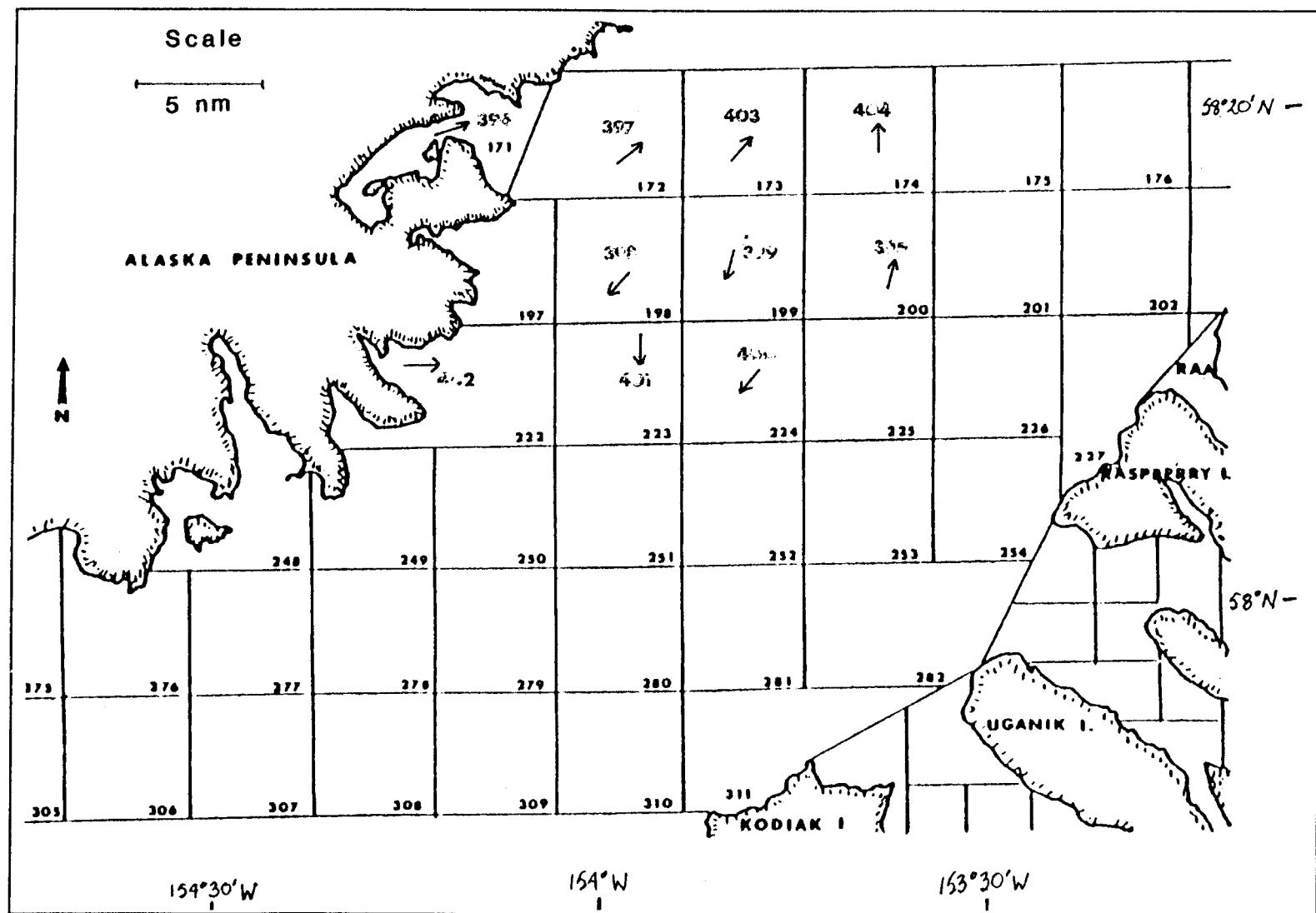
Appendix D.5 Station location and number designations and trawl haul (arrows) locations and numbers, Alitak area: July 1990.



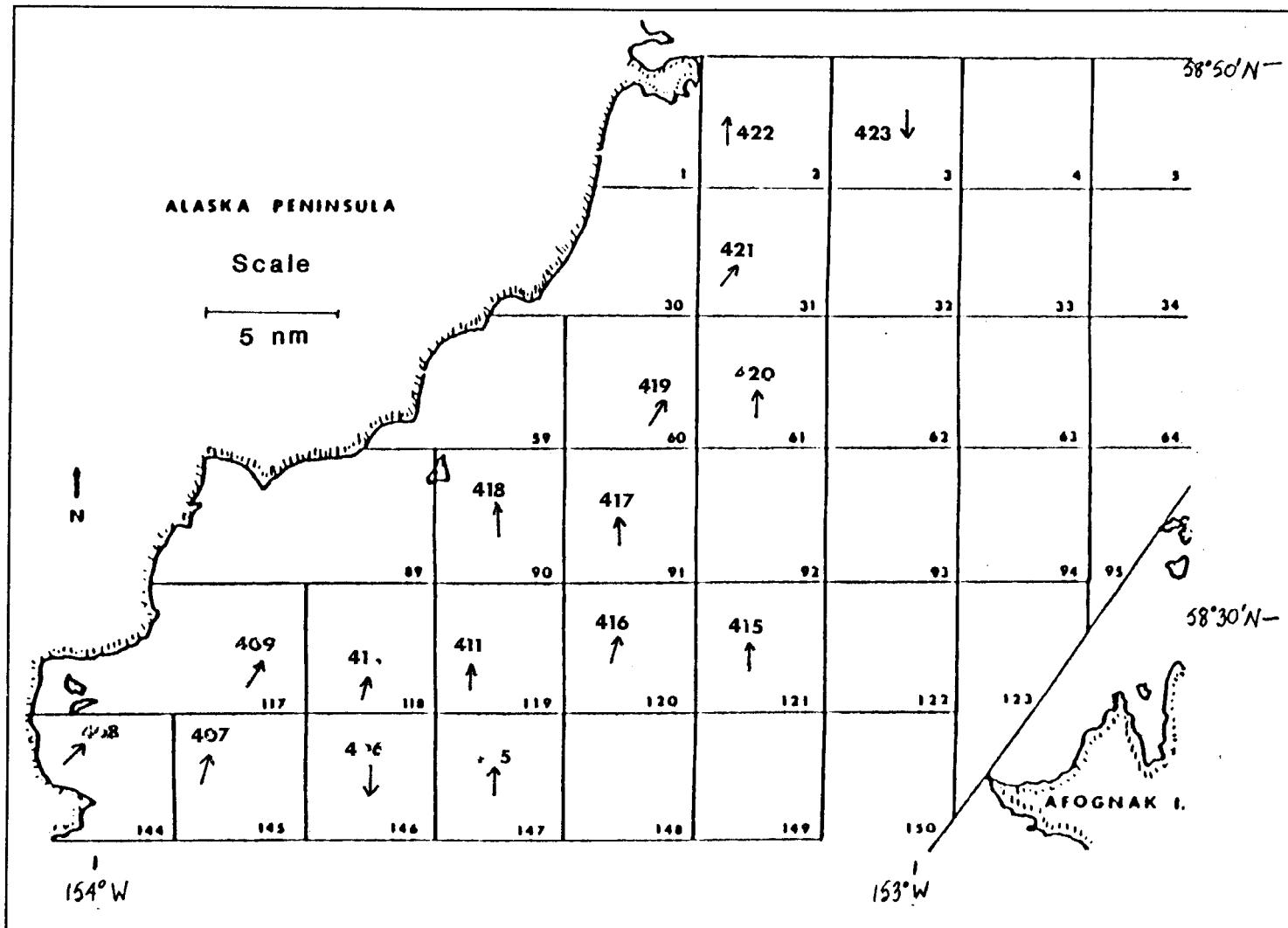
Appendix D.6 Station location and number designations and trawl haul (arrows) locations and numbers, south Kodiak Island offshore area: June and July 1990.



Appendix D.7 Station location and number designations and trawl haul (arrows) locations and numbers, Uganik Bay and Uyak Bay: August 1990.



Appendix D.8 Station location and number designations and trawl haul (arrows) locations and numbers, north Shelikof Strait: September 1990.



Appendix D.9 Station location and number designations and trawl haul (arrows) location and numbers, north Shelikof Strait: September 1990.

Appendix E. Numbers of Tanner crab per 1.85 km (1 nautical mile) in 1990 in the Kodiak Management District with population index by section.

Sta tion	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
NORTHEAST														
255	24	41	18	59	47	14	6	4	0	1	0	1	72	131
256	25	1	0	1	0	2	0	0	0	0	0	0	2	3
257	26	0	0	0	0	0	1	0	0	0	0	0	1	1
283	28	2	1	3	1	1	1	1	0	0	0	0	4	7
284	27	0	1	1	0	2	2	0	0	1	0	1	5	6
395	33	2	0	2	1	0	0	0	0	0	0	0	1	3
420	34	2	0	2	2	0	0	0	0	0	0	0	2	4
421	35	14	3	17	30	0	1	0	0	0	0	0	31	48
442	38	2	0	2	4	1	1	0	0	0	0	0	6	8
443	37	2	0	2	0	0	0	1	0	0	0	0	1	3
444	36	8	2	10	6	1	0	0	0	0	0	0	7	17
CHA	3	216	92	308	168	10	1	0	0	0	0	0	179	487
CHB	7	9	7	16	11	1	0	4	1	0	0	1	17	33
CHE	1	0	0	0	3	0	0	0	0	0	0	0	3	3
CHF	2	294	1,197	1,491	186	636	528	342	204	24	66	294	1,986	3,477
CHG	31	10	2	12	10	10	1	0	0	0	0	0	21	33
CHJ	4	6	2	8	5	3	1	2	0	0	0	0	11	19
CHK	6	197	11	208	246	18	74	196	252	2	34	288	822	1,030
CHL	8	29	0	29	19	1	0	0	0	0	0	0	20	49
KZA	13	143	5	148	76	85	13	5	0	0	0	0	179	327
KZB	12	28	644	672	4	16	108	280	80	40	8	128	536	1,208
KZC	11	3	0	3	6	0	1	0	0	0	0	0	7	10
KZE	10	22	2	24	27	8	9	2	0	0	0	0	46	70
KZF	14	6	3	9	5	4	1	1	1	0	0	0	13	21
KZG	9	7	17	24	0	30	52	19	2	0	0	0	103	127
KZJ	15	6	0	6	1	1	1	0	0	0	0	0	3	9
KZK	16	9	8	17	4	16	47	28	7	1	0	8	103	120
KZO	17	64	10	74	63	21	19	14	0	0	0	0	117	191
KZR	19	22	23	45	22	56	27	24	14	0	1	15	144	189
KZS	20	33	32	65	9	33	33	18	10	0	0	10	103	168
369X	32	5	0	5	1	0	0	0	0	0	0	0	1	6
MOEX	30	12	1	13	17	0	1	0	0	0	0	0	18	31
MOGX	29	8	1	9	6	2	2	2	0	1	0	1	13	22
MOLX	23	9	22	31	6	2	1	4	0	0	0	0	13	44
MONX	18	54	256	310	31	115	43	49	5	8	1	14	252	562
MOPX	21	61	64	125	23	17	13	1	0	0	0	0	54	179
MOXX	22	10	11	21	8	7	14	6	1	0	0	1	36	57
Pop Index		1,812,656	3,140,834	4,953,490	1,446,757	1,482,180	1,142,711	1,024,535	510,407	93,031	101,879	705,317	5,801,498	10,754,989
EASTSIDE														
486	51	7	33	40	4	0	3	118	14	0	0	14	139	179
510	52	6	930	936	1	2	47	130	4	3	0	7	187	1,123
511	53	0	4	4	0	1	0	0	0	0	0	0	1	5
534	56	0	1	1	1	0	2	0	0	0	0	0	3	4
535	57	1	152	153	1	8	9	58	6	0	0	6	82	235
559	64	11	103	114	7	8	4	24	0	2	0	2	45	159
560	65	63	4	67	58	9	19	9	0	0	0	0	95	162
561	58	4	262	266	0	2	8	14	1	2	0	3	27	293
587	67	20	31	51	37	24	27	24	0	6	0	6	118	169

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Appendix E. (Page 2 of 5)

Station	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
588	66	24	0	24	18	18	29	20	1	3	0	4	89	113
589	59	6	334	340	0	5	18	32	0	5	0	5	60	400
619	68	12	236	248	13	20	18	16	0	3	0	3	70	318
620	62	55	25	80	40	4	22	10	0	2	0	2	78	158
621	60	8	8	16	14	3	1	0	0	0	0	0	18	34
656	61	5	1	6	9	1	4	5	0	0	0	0	19	25
KLA	76	9	1	10	3	0	1	2	0	0	1	1	7	17
KLB	75	4	0	4	2	0	0	0	0	0	0	0	2	6
KLCL	77	21	19	40	6	4	44	128	3	10	0	13	195	235
KLD	79	0	0	0	0	0	1	0	0	0	0	0	1	1
KLE	83	4	0	4	7	0	2	3	1	0	0	1	13	17
KLF	82	23	0	23	18	0	0	1	0	1	0	1	20	43
KLG	81	20	9	29	14	7	54	132	76	2	0	78	285	314
KLH	80	0	1	1	1	1	20	85	129	1	3	133	240	241
KLI	78	2	77	79	1	1	3	68	53	0	1	54	127	206
KLLL	54	0	39	39	0	0	0	8	0	4	0	4	12	51
UGA	48	480	60	540	354	252	642	1,302	462	0	54	516	3,066	3,606
UGB	49	1	0	1	1	1	2	3	2	0	0	2	9	10
UGC	50	3	0	3	3	0	10	3	0	0	0	0	15	18
UGD	47	140	1	141	147	0	6	5	0	0	0	0	158	299
UGE	39	18	0	18	26	0	5	6	2	0	0	2	39	57
UGF	40	8	0	8	1	0	0	0	0	0	0	0	1	9
UGG	45	0	0	0	0	0	0	0	0	0	0	0	0	0
UGH	46	0	0	0	0	0	0	0	0	0	0	0	0	0
UGI	42	3	0	3	5	0	0	1	0	0	0	0	6	9
UGJ	44	1	0	1	1	0	0	2	0	0	0	0	3	4
UGM	43	3	12	15	6	15	459	591	21	0	0	21	1,092	1,107
533A	63	9	122	131	4	2	8	25	0	9	1	10	49	180
533B	55	1	0	1	0	0	5	9	1	0	0	1	15	16
558B	71	0	0	0	0	1	1	0	0	0	0	0	2	2
Pop Index		1,547,033	10,045,389	11,592,420	1,299,698	679,016	2,019,193	4,059,072	788,369	162,670	60,418	1,011,457	9,068,434	20,660,860
SOUTHEAST														
585	72	3	1	4	2	1	3	3	0	0	0	0	9	13
586	70	3	31	34	4	6	12	19	0	7	0	7	48	82
614	97	4	39	43	2	2	3	23	0	8	0	8	38	81
615	98	12	11	23	12	0	5	9	0	0	0	0	26	49
617	73	3	1	4	5	5	17	21	1	5	0	6	54	58
618	69	3	34	37	6	4	9	9	0	3	0	3	31	68
651	74	15	0	15	12	2	2	2	0	0	0	0	18	33
688	101	6	0	6	4	0	0	0	0	0	0	0	4	10
725	107	1	0	1	1	0	0	0	0	0	0	0	2	3
726	102	6	0	6	4	0	0	1	0	0	0	0	5	11
727	103	40	1	41	55	1	0	0	0	0	0	0	56	97
728	100	32	1	33	28	2	0	0	0	1	0	1	31	64
729	99	23	0	23	25	0	0	0	0	0	0	0	25	48
759	139	33	4	38	24	0	1	0	0	2	0	2	28	66
760	105	12	3	15	22	2	2	2	0	0	0	0	28	43
761	104	48	3	51	31	0	1	0	0	0	0	0	32	83
794	138	10	0	10	10	0	2	0	0	0	0	0	12	22
858	136	0	0	0	0	0	0	0	0	1	0	1	1	1

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Appendix E. (Page 3 of 5)

Station	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
891	134	4	0	4	3	0	1	4	0	1	0	1	9	13
892	135	3	0	3	0	0	0	0	0	0	0	0	0	3
THA	93	1	0	1	2	0	1	0	5	0	0	5	15	16
THB	94	15	3	18	5	0	1	0	0	0	0	0	6	24
THC	95	12	154	166	7	0	4	33	0	9	0	9	53	219
THD	96	0	91	91	3	3	4	27	2	5	0	7	44	135
THF	90	27	15	42	22	4	3	19	14	0	0	14	62	104
THG	91	51	5	56	57	0	0	2	0	0	0	0	59	115
THH	92	2	0	2	2	0	2	0	0	0	0	0	3	5
THI	89	20	3	23	11	13	18	54	198	0	3	201	297	320
THJ	87	7	0	7	9	0	0	1	10	0	0	10	20	27
THK	88	1	0	1	2	2	1	8	10	0	0	11	24	25
THL	86	10	4	14	4	0	6	59	63	0	2	65	134	148
THM	85	0	1	1	0	3	34	77	29	1	0	30	144	145
THN	84	3	1	4	6	10	24	109	61	0	0	61	210	214
Pop Index		1,148,017	781,102	1,929,119	1,086,357	131,469	299,245	651,302	383,859	117,252	5,970	507,081	2,675,454	4,604,574
SOUTHWEST														
645	117	21	37	58	16	3	6	12	0	2	0	2	39	97
ALA	145	735	1,029	1,764	514	8	64	178	0	8	0	8	772	2,536
ALB	140	2	9	11	2	0	1	0	0	0	0	0	3	14
ALC	143	34	28	62	16	6	26	240	12	22	4	38	326	388
ALD	141	23	6	29	31	0	17	25	7	0	1	8	81	110
ALF	142	54	156	210	11	1	14	22	2	0	1	4	52	262
ALG	146	42	21	63	26	1	9	11	2	0	0	2	49	112
ALH	148	108	38	146	13	21	27	12	3	3	1	4	77	223
ALI	149	456	9	465	225	474	183	24	3	0	0	15	921	1,386
ALJ	147	392	2	394	276	258	100	12	0	0	0	0	646	1,040
ALK	152	5	0	5	8	12	11	3	1	1	0	1	35	40
ALL	150	306	2	308	138	370	144	16	2	0	0	4	672	980
ALM	151	51	1	52	27	8	12	3	0	0	0	0	50	102
ALO	154	134	7	141	93	72	21	8	4	0	0	4	198	339
ALP	157	336	9	345	320	64	42	14	2	0	0	2	442	787
ALQ	155	354	3	357	370	10	58	106	20	0	0	22	566	923
ALR	156	91	4	95	56	51	21	3	1	1	0	1	132	227
608X	123	0	0	0	5	0	0	0	0	0	0	0	5	5
646A	116	4	0	4	4	5	0	0	0	0	0	0	5	9
646B	115	1	0	1	2	0	0	0	0	0	0	0	2	3
646C	118	29	0	29	26	0	0	0	0	0	0	0	26	55
646D	114	5	0	5	0	0	0	0	0	0	0	0	0	5
676X	126	14	0	14	16	0	0	0	0	0	0	0	16	30
677X	125	0	0	0	0	0	0	0	0	0	0	0	0	0
678X	124	0	0	0	0	0	0	0	0	0	0	0	0	0
682B	120	11	80	91	16	0	3	14	0	0	1	1	34	125
683A	119	11	1	12	9	0	0	0	0	0	0	0	9	21
683B	113	0	0	0	0	4	0	0	0	0	0	0	4	4
683C	121	0	0	0	0	0	0	0	0	0	0	0	0	0
683D	112	3	0	3	3	0	0	0	0	0	0	0	3	6
684A	110	2	0	2	1	0	0	0	0	0	0	0	1	3
684B	108	181	1	182	169	1	0	0	0	0	0	0	170	352
684C	111	0	0	0	1	0	0	0	0	0	0	0	1	1

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Appendix E. (Page 4 of 5)

Station	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
684D	122	0	0	0	0	0	0	0	0	0	0	0	0	0
712X	127	20	0	20	22	0	0	0	0	0	0	0	22	42
748X	128	21	0	21	23	0	0	1	0	1	0	1	25	46
750X	129	0	0	0	0	0	0	0	0	0	0	0	0	0
781X	130	2	0	2	4	0	0	0	0	0	0	0	4	6
815X	131	0	0	0	0	0	0	0	0	0	0	0	0	0
816X	132	0	0	0	0	0	0	0	0	0	0	0	0	0
881X	133	0	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		3,527,315	1,383,437	4,910,753	2,635,176	1,259,988	709,183	704,467	53,127	59,552	11,567	124,247	5,433,060	10,343,812
WESTSIDE														
KUD	388	5	25	30	0	0	0	0	0	0	0	0	0	30
KUE	389	4	1	6	0	3	0	0	0	0	0	0	3	9
KUF	390	121	36	157	68	43	30	14	0	0	0	0	155	312
KUG	391	5	0	5	2	0	0	0	0	0	0	0	2	7
KUH	393	2	3	6	4	1	1	0	0	0	0	0	7	12
KUI	392	148	132	280	61	99	10	9	0	0	0	0	179	459
KUJ	387	44	220	264	5	31	32	126	22	22	4	48	242	506
KUK	385	60	344	404	7	107	18	46	5	1	0	6	184	588
KUL	384	63	370	433	3	28	25	50	35	22	13	70	177	610
KUM	386	4	0	4	3	5	1	1	1	0	0	1	11	15
KUN	382	93	152	245	38	98	32	7	2	0	0	2	177	422
KUO	381	82	168	250	68	216	78	6	0	0	0	0	368	618
KUP	380	78	230	308	25	120	36	36	0	4	0	4	221	529
KUQ	379	97	97	194	113	84	5	3	0	0	0	0	205	399
KUR	372	0	0	0	0	0	0	0	0	0	0	0	0	0
KUS	378	36	86	122	18	45	16	10	1	2	0	3	92	214
KUT	377	34	20	54	59	27	6	0	1	0	0	1	93	147
KUU	374	150	504	654	4	212	108	158	34	20	2	56	538	1,192
KUV	375	5	10	15	0	8	9	1	0	0	0	0	18	33
KUW	376	30	142	172	2	102	340	88	74	0	10	84	616	788
KUX	373	158	214	372	4	185	102	25	4	3	3	10	326	698
KUY	383	0	1	1	0	0	0	0	0	0	0	0	0	1
MAA	413	76	242	318	27	27	51	149	3	12	2	17	271	589
PAA	414	6	94	100	1	4	11	34	30	7	4	41	92	192
RAA	394	10	35	45	8	1	0	12	28	0	2	30	51	96
UYEX	369	26	278	304	18	5	14	13	0	3	0	3	53	357
UYFX	370	27	66	93	19	12	22	38	1	5	0	6	97	190
UYHX	371	1	8	9	5	0	0	0	0	0	0	0	5	14
UYKX	368	28	5	33	23	1	0	3	4	0	0	4	30	63
UYMX	367	56	234	290	25	0	5	16	0	0	0	0	46	336
UYQX	364	23	2	25	22	2	2	0	0	0	0	0	26	51
UYSX	366	23	100	123	0	15	88	32	40	2	15	57	192	315
Pop Index		1,539,037	4,037,828	5,576,865	725,246	1,325,090	807,624	874,879	209,757	98,770	42,662	351,190	4,084,028	9,660,893
NORTH MAINLAND														
2	422	22	42	64	22	0	1	23	0	2	0	2	48	112
3	423	43	3	46	36	0	0	1	2	0	0	2	39	85
31	421	50	47	97	62	1	2	14	0	5	0	5	84	181
60	419	13	24	37	12	0	0	3	0	0	0	0	15	52

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Appendix E. (Page 5 of 5)

Sta tion	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
61	420	6	7	13	4	9	1	11	0	0	0	0	26	39
90	418	15	42	57	17	0	6	12	0	1	0	1	36	93
91	417	24	18	41	24	3	4	15	0	0	0	0	45	86
117	409	48	2	50	49	0	0	1	0	0	0	0	50	100
118	410	50	10	60	40	2	13	27	4	2	0	6	88	148
119	411	41	8	49	57	5	26	84	3	10	0	13	185	234
120	416	54	34	88	67	9	7	10	0	1	0	1	94	182
121	415	61	26	87	36	28	11	7	0	1	0	1	83	170
144	408	66	0	66	50	0	1	1	0	0	0	0	52	118
145	407	52	32	84	38	0	2	13	4	0	0	4	57	141
146	406	44	178	222	33	19	9	24	1	2	0	3	88	310
147	405	88	80	168	56	25	7	23	0	0	0	0	111	279
171	396	100	2	102	35	125	33	12	29	1	16	46	251	353
172	397	223	81	304	260	9	3	11	0	0	1	1	284	588
173	403	107	58	165	88	96	43	30	2	1	0	3	260	425
174	404	49	44	93	20	15	10	15	0	1	0	1	61	154
198	398	88	52	140	58	27	2	10	4	2	0	6	103	243
199	399	159	4	163	99	72	18	13	0	0	0	0	202	365
200	395	174	0	174	100	147	21	12	0	0	0	0	280	454
222	402	3	1	4	1	0	0	0	0	0	0	0	1	5
223	401	47	63	110	43	6	1	6	2	1	0	3	59	169
224	400	252	2	254	247	70	7	14	2	1	0	3	341	595
Pop Index		7,046,141	3,301,573	10,347,713	5,970,049	2,313,040	806,067	1,470,971	148,847	115,216	36,289	300,352	10,860,480	21,208,194
KODIAK														
GRAND TOTAL		16,620,199	22,690,162	39,310,360	13,163,283	7,190,782	5,784,022	8,785,225	2,094,366	646,492	258,785	2,999,643	37,922,952	77,233,320

Appendix F. Numbers of king crab per 1.85 km (1 nautical mile) in 1990 in the Kodiak Management Area with population index by district.

Station	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
NORTHEAST													
255	24	0	0	0	0	0	0	0	0	0	0	0	0
256	25	0	0	0	0	0	0	0	0	0	0	0	0
257	26	0	0	0	0	0	0	0	0	0	0	0	0
283	28	0	0	0	0	0	0	0	0	0	0	0	0
284	27	0	0	0	0	0	0	0	0	0	0	0	0
395	33	0	0	0	0	0	0	0	0	0	0	0	0
420	34	0	0	0	0	0	0	0	0	0	0	0	0
421	35	0	0	0	0	0	0	0	0	0	0	0	0
442	38	0	0	0	0	0	0	0	0	0	0	0	0
443	37	0	0	0	0	0	0	0	0	0	0	0	0
444	36	0	0	0	0	0	0	0	0	0	0	0	0
486	51	0	0	0	0	0	0	0	0	0	0	0	0
510	52	0	0	0	0	0	0	0	0	0	0	0	0
511	53	0	0	0	0	0	0	0	0	0	0	0	0
534	56	0	0	0	0	0	0	0	0	0	0	0	0
535	57	0	0	0	0	0	0	0	0	0	0	0	0
559	64	0	0	0	0	0	0	0	0	0	0	0	0
560	65	0	0	0	0	0	0	0	0	0	0	0	0
561	58	0	0	0	0	0	0	0	0	0	0	0	0
587	67	0	0	0	0	0	0	0	0	0	0	0	0
588	66	0	0	0	0	0	0	0	0	0	0	0	0
589	59	0	0	0	0	0	0	0	0	0	0	0	0
619	68	0	0	0	0	0	0	0	0	0	0	0	0
620	62	0	0	0	0	0	0	0	0	0	0	0	0
621	60	0	0	0	0	0	0	0	0	0	0	0	0
656	61	0	0	0	0	0	0	0	0	0	0	0	0
CHA	3	0	0	0	0	0	0	0	0	0	0	0	0
CHB	7	0	0	0	0	0	0	0	0	0	0	0	0
CHE	1	0	0	0	0	0	0	0	0	0	0	0	0
CHF	2	0	0	0	0	0	0	0	0	0	0	0	0
CHG	31	0	0	0	0	0	0	0	0	0	0	0	0
CHJ	4	0	0	0	0	0	0	0	0	0	0	0	0
CHK	6	0	0	0	0	0	0	0	0	0	0	0	0
CHL	8	0	0	0	0	0	0	0	0	0	0	0	0
KLA	76	0	0	0	0	0	0	0	0	0	0	0	0
KLB	75	0	0	0	0	0	0	0	0	0	0	0	0
KLC	77	0	0	0	0	0	0	0	0	0	0	0	0
KLD	79	0	0	0	0	0	0	0	0	0	0	0	0
KLE	83	0	0	0	0	0	0	0	0	0	0	0	0
KLF	82	0	0	0	0	0	0	0	0	0	0	0	0
KLG	81	0	0	0	0	0	0	0	0	0	0	0	0
KLH	80	0	0	0	0	0	0	0	0	0	0	0	0
KLI	78	0	0	0	0	0	0	0	0	0	0	0	0
KLL	54	0	0	0	0	0	0	0	0	0	0	0	0
KZA	13	0	0	0	0	0	0	0	0	0	0	0	0
KZB	12	0	0	0	0	0	0	0	0	0	0	0	0
KZC	11	0	0	0	0	0	0	0	0	0	0	0	0
KZE	10	0	0	0	0	0	0	0	0	0	0	0	0
KZF	14	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix F. (page 2 of 5)

Sta tion	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
KZG	9	0	0	0	0	0	0	0	0	0	0	0	0
KZJ	15	0	0	0	0	0	0	0	0	0	0	0	0
KZK	16	0	0	0	0	0	0	0	0	0	0	0	0
KZO	17	0	0	0	0	0	0	0	0	0	0	0	0
KZR	19	0	0	0	0	0	0	0	0	0	0	0	0
KZS	20	0	0	0	0	0	0	0	0	0	0	0	0
UGA	48	0	6	6	1	0	0	0	0	0	0	3	0
UGB	49	0	0	0	0	0	0	0	0	0	0	0	0
UGC	50	0	0	0	0	0	0	0	0	0	0	0	0
UGD	47	0	0	0	0	0	0	0	0	0	0	0	0
UGE	39	0	0	0	0	0	0	0	0	0	0	0	0
UGF	40	0	0	0	0	0	0	0	0	0	0	0	0
UGG	45	0	0	0	0	0	0	0	0	0	0	0	0
UGH	46	0	0	0	0	0	0	0	0	0	0	0	0
UGI	42	0	0	0	0	0	0	0	0	0	0	0	0
UGJ	44	0	0	0	0	0	0	0	0	0	0	0	0
UGM	43	0	0	0	0	0	0	0	0	0	0	0	0
369X	32	0	0	0	0	0	0	0	0	0	0	0	0
533A	63	0	0	0	0	0	0	0	0	0	0	0	0
533B	55	0	0	0	0	0	0	0	0	0	0	0	0
558B	71	0	0	0	0	0	0	0	0	0	0	0	0
MOEX	30	0	0	0	0	0	0	0	0	0	0	0	0
NBMOGX	29	0	0	0	0	0	0	0	0	0	0	0	0
MOLX	23	0	0	0	0	0	0	0	0	0	0	0	0
MONX	18	0	0	0	0	0	0	0	0	0	0	0	0
MOPX	21	0	0	0	0	0	0	0	0	0	0	0	0
MOXX	22	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		6,425	23,955	30,380	9,281	1,504	6,942	1,018	1,018	1,732	2,749	21,494	51,874
SOUTHEAST													
585	72	0	0	0	0	0	0	0	0	0	0	0	0
586	70	0	0	0	0	0	0	0	0	0	0	0	0
614	97	0	0	0	0	0	0	0	0	0	0	0	0
615	98	0	0	0	0	0	0	0	0	0	0	0	0
617	73	0	0	0	0	0	0	0	0	0	0	0	0
618	69	0	0	0	0	0	0	0	0	0	0	0	0
651	74	0	0	0	0	0	0	0	0	0	0	0	0
688	101	0	0	0	0	0	0	0	0	0	0	0	0
725	107	0	0	0	0	0	0	0	0	0	0	0	0
726	102	0	0	0	0	0	0	0	0	0	0	0	0
727	103	0	0	0	0	0	0	0	0	0	0	0	0
728	100	0	0	0	0	0	0	0	0	0	0	0	0
729	99	0	0	0	0	0	0	0	0	0	0	0	0
759	139	0	0	0	0	0	0	0	0	0	0	0	0
760	105	0	0	0	0	0	0	0	0	0	0	0	0
761	104	0	0	0	0	0	0	0	0	0	0	0	0
794	138	0	0	0	0	0	0	0	0	0	0	0	0
858	136	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix F. (page 3 of 5)

Station	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
891	134	0	0	0	0	0	0	0	0	0	0	0	0
892	135	0	0	0	0	0	0	0	0	0	0	0	0
THA	93	0	0	0	0	0	0	1	0	0	0	0	1
THB	94	0	0	0	0	0	0	0	0	0	0	0	0
THC	95	0	0	0	0	0	0	0	0	0	0	0	0
THD	96	0	0	0	0	0	0	0	0	0	0	0	0
THF	90	0	0	0	0	0	0	0	0	1	1	1	1
THG	91	0	0	0	0	0	0	0	0	0	0	0	0
THH	92	0	0	0	0	2	0	2	0	2	2	5	5
THI	89	0	0	0	0	0	0	0	0	0	0	0	0
THJ	87	0	0	0	0	0	0	0	0	0	0	0	0
THK	88	0	0	0	0	0	0	0	0	0	0	0	0
THL	86	0	0	0	0	0	0	0	0	0	0	0	0
THM	85	0	0	0	0	0	0	0	0	0	0	0	0
THN	84	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	2,025	0	2,861	0	3,499	3,499	8,385	8,385
SOUTHWEST													
645	117	0	0	0	0	0	0	0	0	0	0	0	0
ALA	145	0	3	3	0	0	1	2	0	4	4	7	10
ALB	140	0	1	1	0	0	0	0	0	0	0	0	1
ALC	143	0	0	0	0	1	0	1	2	2	4	6	6
ALD	141	0	0	0	0	0	0	3	3	3	6	9	9
ALF	142	2	5	7	0	2	6	1	5	1	6	15	22
ALG	146	0	0	0	0	0	0	0	0	0	0	0	0
ALH	148	0	0	0	0	0	0	0	0	1	1	1	1
ALI	149	0	0	0	0	0	1	0	1	0	1	2	2
ALJ	147	0	0	0	0	0	0	0	0	2	2	2	2
ALK	152	0	20	20	0	0	1	4	4	11	15	20	40
ALL	150	0	0	0	0	0	0	0	0	1	1	1	1
ALM	151	0	0	0	0	0	0	0	0	2	2	2	2
ALO	154	0	0	0	0	0	0	0	0	0	0	0	0
ALP	157	0	0	0	0	0	0	0	0	0	0	0	0
ALQ	155	0	0	0	0	0	0	0	0	0	0	0	0
ALR	156	0	0	0	0	0	0	0	0	0	0	0	0
608X	123	0	0	0	0	0	0	0	0	0	0	0	0
646A	116	0	0	0	0	0	0	0	0	0	0	0	0
646B	115	0	0	0	0	0	0	0	0	0	0	0	0
646C	118	0	0	0	0	0	0	0	0	0	0	0	0
646D	114	0	0	0	0	0	0	0	0	0	0	0	0
676X	126	0	0	0	0	0	0	0	0	0	0	0	0
677X	125	0	0	0	0	0	0	0	0	0	0	0	0
678X	124	0	0	0	0	0	0	0	0	0	0	0	0
682B	120	0	0	0	0	0	0	0	0	0	0	0	0
683A	119	0	0	0	0	0	0	0	0	0	0	0	0
683B	113	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix F. (page 4 of 5)

Sta tion	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
683C	121	0	0	0	0	0	0	0	0	0	0	0	0
683D	112	0	0	0	0	0	0	0	0	0	0	0	0
684A	110	0	0	0	0	0	0	0	0	0	0	0	0
684B	108	0	0	0	0	0	0	0	0	0	0	0	0
684C	111	0	0	0	0	0	0	0	0	0	0	0	0
684D	122	0	0	0	0	0	0	0	0	0	0	0	0
712X	127	0	0	0	0	0	0	0	0	0	0	0	0
748X	128	0	0	0	0	0	0	0	0	0	0	0	0
750X	129	0	0	0	0	0	0	0	0	0	0	0	0
781X	130	0	0	0	0	0	0	0	0	0	0	0	0
815X	131	0	0	0	0	0	0	0	2	0	2	2	2
816X	132	0	0	0	0	0	0	0	0	0	0	0	0
881X	133	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		1,899	21,593	23,491	0	3,023	8,149	8,423	31,610	21,425	53,036	72,631	96,122
NORTH MAINLAND													
2	422	0	0	0	1	0	0	0	0	0	0	1	1
3	423	0	0	0	0	0	0	0	0	0	0	0	0
31	421	0	0	0	0	0	0	0	0	0	0	0	0
60	419	1	0	1	0	0	0	0	0	0	0	0	1
61	420	0	0	0	0	0	0	0	0	0	0	0	0
90	418	0	0	0	0	0	0	0	0	0	0	0	0
91	417	0	0	0	0	0	0	0	0	0	0	0	0
117	409	0	0	0	0	0	0	0	0	0	0	0	0
118	410	0	0	0	0	0	0	0	0	0	0	0	0
119	411	0	0	0	0	0	0	0	0	0	0	0	0
120	416	0	0	0	0	0	0	0	0	0	0	0	0
121	415	0	0	0	0	0	0	0	0	0	0	0	0
144	408	0	0	0	0	0	0	0	0	0	0	0	0
145	407	0	0	0	0	0	0	0	0	0	0	0	0
146	406	0	0	0	0	0	0	0	0	0	0	0	0
147	405	0	0	0	0	0	0	0	0	0	0	0	0
171	396	0	0	0	2	0	1	3	2	10	12	18	18
172	397	0	0	0	0	0	0	0	0	0	0	0	0
173	403	0	0	0	0	0	0	0	0	0	0	0	0
174	404	0	0	0	0	0	0	0	0	0	0	0	0
198	398	0	0	0	0	0	0	0	0	0	0	0	0
199	399	0	0	0	0	0	0	0	0	0	0	0	0
200	395	0	0	0	0	0	0	0	0	0	0	0	0
222	402	0	0	0	0	0	0	0	0	0	0	0	0
223	401	0	0	0	0	0	0	0	0	0	0	0	0
224	400	0	0	0	0	0	0	0	0	0	0	0	0
KUD	388	0	0	0	0	0	0	0	0	0	0	0	0
KUE	389	0	0	0	0	0	0	0	0	0	0	0	0
KUF	390	0	0	0	0	0	0	0	0	0	0	0	0
KUG	391	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix F. (page 5 of 5)

Sta tion	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
KUH	393	0	0	0	0	0	0	0	0	0	0	0	0
KUI	392	0	0	0	0	0	0	0	0	0	0	0	0
KUJ	387	0	0	0	0	0	0	0	0	0	0	0	0
KUK	385	0	0	0	0	0	0	0	0	0	0	0	0
KUL	384	0	2	2	2	0	0	7	7	57	63	72	73
KUM	386	0	0	0	1	0	0	0	0	0	0	1	0
KUN	382	0	0	0	0	0	0	0	0	0	0	0	0
KUO	381	0	0	0	0	0	0	0	0	0	0	0	0
KUP	380	0	0	0	0	0	0	0	0	0	0	0	0
KUQ	379	0	0	0	0	0	0	0	0	0	0	0	0
KUR	372	0	0	0	0	0	0	0	0	0	0	0	0
KUS	378	0	0	0	0	0	0	0	0	0	0	0	0
KUT	377	0	0	0	0	0	0	0	0	0	0	0	0
KUU	374	0	0	0	0	0	0	0	0	0	0	0	0
KUV	375	0	0	0	0	0	0	0	0	0	0	0	0
KUW	376	19	1	20	18	0	0	0	0	0	0	18	38
KUX	373	0	0	0	0	0	0	0	0	0	0	0	0
KUY	383	0	0	0	0	0	0	0	0	0	0	0	0
MAA	413	0	0	0	0	0	0	0	0	0	0	0	0
PAA	414	0	0	0	0	0	0	0	0	0	0	0	0
RAA	394	0	0	0	0	0	0	0	0	0	0	0	0
UYEX	369	0	0	0	0	0	0	0	0	0	0	0	0
UYFX	370	0	0	0	0	0	0	0	0	0	0	0	0
UYHX	371	1	0	1	0	0	0	0	0	0	0	0	1
UYKX	368	0	0	0	0	0	0	0	0	1	1	1	1
UYMX	367	0	0	0	0	0	0	0	0	0	0	0	0
UYQX	364	0	0	0	0	0	0	0	0	0	0	0	0
UYSX	366	0	0	0	0	0	0	0	2	0	2	2	2
Pop Index		12,744	1,246	13,990	16,982	0	1,990	9,311	9,144	50,260	59,404	87,688	101,678
GRAND TOTAL		21,069	46,793	67,861	26,264	6,552	17,081	21,613	41,773	76,916	118,688	190,198	258,059

Appendix G.1. Halibut lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
12	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
32	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
35	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
37	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
39	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
40	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
41	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
42	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
43	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
44	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
45	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
46	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
48	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
49	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
50	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
52	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
53	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
54	2	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	15

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Appendix G.1. (page 2 of 4)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
55	0	0	0	0	1	0	1	0	0	0	1	2	1	0	1	0	0	0	0	0	7
56	2	0	0	0	0	1	1	0	0	0	0	3	1	1	0	0	0	0	0	0	13
57	0	1	0	0	1	2	0	1	0	0	0	1	0	1	0	0	0	0	0	0	10
58	2	0	0	0	3	1	0	0	2	0	0	2	2	0	0	0	1	0	0	0	16
59	3	0	0	0	1	2	0	0	0	0	1	3	2	1	0	0	0	0	0	0	25
60	2	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	16
61	1	0	0	0	2	0	0	0	0	0	0	1	0	1	4	2	1	0	0	0	19
62	0	0	0	1	6	3	0	0	0	1	0	0	1	0	0	0	7	8	0	0	24
63	2	0	0	0	1	1	2	0	0	0	0	0	1	0	0	0	4	8	0	0	27
64	0	0	0	1	1	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15
65	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
66	0	0	0	1	2	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	15
67	1	0	0	1	1	3	1	0	0	3	0	0	0	0	0	0	0	0	0	0	22
68	0	0	0	1	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	31
69	1	1	0	2	1	2	2	1	0	0	0	1	0	0	0	0	0	0	0	0	19
70	3	0	0	1	0	2	2	1	0	1	0	2	0	0	0	0	0	0	0	0	18
71	1	0	0	0	0	2	4	0	1	0	0	1	0	0	0	0	0	0	0	0	13
72	2	0	0	1	3	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	26
73	1	0	0	0	1	0	2	2	1	0	0	0	1	0	0	0	0	0	0	0	12
74	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
75	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	14
76	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
77	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
78	3	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
79	0	2	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	16
80	3	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	11
81	2	0	0	1	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	10
82	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	8
83	1	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	10
84	0	2	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5
85	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
86	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
87	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
88	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
89	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
90	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
91	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
92	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

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Appendix G.1. (page 3 of 4)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
96	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	8
97	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0	1	1	2	2	0	8
98	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	8
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
100	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
101	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
102	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
103	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8
104	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
105	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
106	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
107	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
110	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
114	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
115	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
118	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
121	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
123	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
124	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

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Appendix G.1. (page 4 of 4)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
146	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
150	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
163	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
210	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	135	10	17	91	58	58	19	8	37	36	57	108	47	44	31	235	40	9	14	1054	

List of Area Groups:

- | | | |
|--------------------|----------------------|-----------------------|
| 1 SHELIKOF | 8 SITKINAK ISL | 15 INNER MARMOT BAY |
| 2 MARMOT OFFSHORE | 10 ALITAK BAY | 16 MALINA-RASPBERRY |
| 3 CHINIAK OFFSHORE | 11 CHINIAK BAY | 17 UGAK BAY |
| 4 BARNABAS | 12 KILIUDA BAY | 18 SOUTHWEST OFFSHORE |
| 5 TWOHEADED | 13 KUPREANOF-VIEKODA | 19 MARMOT-IZHUT BAY |
| 6 ALITAK FLATS | 14 UGANIK BAY | 20 UYAK BAY |
| 7 GEESE ISLANDS | | |

Appendix G.2. Flathead sole lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7	6	0	0	0	0	0	1	0	0	3	0	1	0	0	0	0	2	1	0	1	15
8	14	0	0	0	0	2	0	3	0	3	2	0	2	0	0	0	0	0	0	1	27
9	25	0	2	1	4	3	4	0	3	1	0	0	1	0	0	0	0	3	2	49	
10	14	0	0	1	8	7	5	0	6	0	0	3	0	1	0	0	1	2	1	0	49
11	16	2	0	2	20	13	5	0	16	3	2	1	1	4	0	0	0	1	2	2	90
12	20	2	1	4	16	23	5	0	21	3	0	8	1	5	0	0	6	2	0	3	120
13	9	2	3	4	11	36	5	1	12	3	4	4	0	5	0	0	4	2	0	1	106
14	5	3	0	6	13	23	6	2	18	5	2	4	0	14	1	6	2	0	1	0	111
15	1	2	1	3	17	23	7	0	30	3	5	5	3	11	0	2	0	1	2	1	116
16	1	1	3	8	27	48	5	0	25	7	10	4	5	14	0	0	4	2	2	2	168
17	1	5	3	6	27	77	5	0	16	7	5	6	3	13	0	0	7	1	0	4	186
18	1	0	0	5	30	59	9	0	19	6	5	7	4	15	0	6	1	2	6	175	
19	4	4	0	8	15	40	3	1	20	9	3	9	3	22	1	4	0	1	2	2	149
20	3	1	1	6	12	21	12	1	18	2	10	0	4	10	0	0	10	1	2	1	115
21	4	0	1	11	6	9	18	0	21	1	20	2	2	15	0	0	11	0	0	3	124
22	9	1	0	6	19	19	15	0	22	8	25	6	7	10	0	0	16	3	1	8	175
23	5	0	1	14	21	17	7	0	16	2	21	5	9	11	0	0	8	2	0	8	147
24	12	2	1	16	29	27	26	1	29	2	19	5	12	21	0	0	20	0	0	8	230
25	10	1	1	16	29	28	21	0	28	4	16	23	22	18	2	12	0	0	5	14	250
26	12	2	0	23	37	33	4	0	53	4	22	29	50	35	3	11	2	1	30	351	
27	18	3	2	31	43	31	14	0	48	12	24	33	49	26	5	20	4	2	33	398	
28	37	5	3	29	72	42	17	2	76	20	14	45	66	38	8	12	3	2	51	542	
29	38	5	6	40	86	53	15	2	79	29	28	46	53	60	4	19	4	7	47	621	
30	61	9	10	35	112	51	19	1	72	39	32	49	46	41	11	18	5	13	55	679	
31	64	11	20	42	123	46	36	1	63	38	41	40	47	34	8	35	9	20	33	711	
32	50	13	30	74	79	37	27	6	58	42	46	35	33	24	9	46	9	32	48	698	
33	61	11	24	69	79	41	38	2	47	31	56	33	39	40	8	38	16	26	35	694	
34	58	12	32	52	62	36	30	1	47	20	61	29	30	26	12	45	9	17	29	608	
35	32	9	17	44	51	43	26	5	29	20	44	35	37	25	14	22	12	16	21	502	
36	38	12	21	27	48	42	25	4	35	21	55	22	25	20	11	19	8	25	20	478	
37	30	5	9	21	32	29	11	1	26	24	49	12	14	20	8	33	6	12	10	352	
38	28	2	10	23	28	24	14	1	27	11	37	16	5	16	9	29	11	14	10	315	
39	20	2	5	19	30	16	9	0	20	20	47	13	3	17	3	22	9	12	8	275	
40	5	1	5	6	17	12	5	1	21	10	23	5	4	11	5	27	4	4	4	170	
41	4	0	2	6	11	4	2	0	17	4	18	4	0	3	1	21	6	4	2	109	
42	1	0	1	2	2	0	2	2	5	1	7	4	2	3	1	14	7	4	0	58	
43	1	0	0	1	2	1	2	0	2	1	3	0	0	2	1	9	5	7	4	41	

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Appendix G.2. (page 2 of 2)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
44	1	0	1	1	0	0	1	0	3	0	1	0	0	0	1	2	1	0	1	13	
45	0	0	0	2	1	0	0	0	2	0	0	0	0	1	0	2	1	0	0	9	
46	0	0	1	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	5	
47	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
49	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	1	1	0	0	5	
	719	128	217	665	1223	1015	458	35	1059	415	756	545	580	633	126	564	154	239	509	10040	

List of Area Groups:

1 SHELIKOF
 2 MARMOT OFFSHORE
 3 CHINIAK OFFSHORE
 4 BARNABAS
 5 TWOHEADED
 6 ALITAK FLATS
 7 GEESE ISLANDS

8 SITKINAK ISL
 10 ALITAK BAY
 11 CHINIAK BAY
 12 KILIUDA BAY
 13 KUPREANOF-VIEKODA
 14 UGANIK BAY

15 INNER MARMOT BAY
 16 MALINA-RASPBERRY
 17 UGAK BAY
 18 SOUTHWEST OFFSHORE
 19 MARMOT-IZHUT BAY
 20 UYAK BAY

Appendix G.3. Rex sole lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	12	13	14	15	16	17	18	19	20			
15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
20	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
21	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
22	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
26	2	1	0	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	9
27	3	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8
28	2	2	1	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	12
29	3	1	1	0	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	7
30	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
31	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8
32	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8
33	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
34	1	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
35	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
36	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
37	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
38	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
39	1	1	8	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
40	2	6	4	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
41	3	8	1	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
42	3	2	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
43	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
44	0	5	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
45	0	4	4	9	4	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
46	0	4	4	9	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
47	1	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
48	0	3	1	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
49	0	0	1	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
50	0	0	0	0	3	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
51	0	0	0	0	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
52	0	0	0	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9

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Appendix G.3. (page 2 of 2)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	12	13	14	15	16	17	18	19	20			
53	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
54	0	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	5	
55	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	
56	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
57	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
58	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	48	53	72	176	10	2	12	67	1	9	32	7	4	2	1	11	6	7	520		

List of Area Groups:

1 SHELIKOF
2 MARMOT OFFSHORE
3 CHINIAK OFFSHORE
4 BARNABAS
5 TWOHEADED
6 ALITAK FLATS
7 GEESE ISLANDS

8 SITKINAK ISL
10 ALITAK BAY
12 KILIUDA BAY
13 KUPREANOF-VIEKODA
14 UGANIK BAY
15 INNER MARMOT BAY

16 MALINA-RASPBERRY
17 UGAK BAY
18 SOUTHWEST OFFSHORE
19 MARMOT-IZHUT BAY
20 UYAK BAY

Appendix G.4. Arrowtooth flounder lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
10	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
11	1	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	21
12	3	0	1	0	0	0	1	0	22	1	1	0	0	0	0	0	0	0	0	0	43
13	3	0	0	0	0	0	1	0	16	3	1	0	0	0	0	0	0	0	0	0	40
14	6	0	0	0	0	0	0	0	12	2	0	0	0	0	0	0	0	0	0	0	32
15	5	1	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	13
16	8	1	0	0	0	0	2	1	0	0	1	0	0	0	1	0	0	0	0	0	17
17	2	1	0	0	0	3	0	0	0	0	2	0	0	2	0	0	0	0	1	0	17
18	6	3	0	1	9	0	0	3	1	2	1	6	0	5	0	0	1	0	1	0	39
19	8	4	2	3	11	1	3	2	1	2	1	8	0	5	0	2	2	3	0	0	58
20	10	1	3	3	9	0	4	6	5	5	0	9	0	4	0	6	0	0	0	0	65
21	14	0	2	0	12	6	4	17	4	5	2	15	0	7	0	6	1	1	2	2	98
22	18	2	3	5	7	6	3	16	9	7	2	15	0	11	0	4	1	0	0	1	112
23	14	2	0	3	4	11	0	18	3	4	3	7	1	6	0	2	2	1	0	0	81
24	15	0	1	5	6	3	0	6	4	3	2	3	0	5	0	3	0	3	3	3	62
25	24	1	1	7	12	4	1	0	0	0	0	10	0	4	0	2	0	0	0	1	67
26	16	1	2	10	6	2	1	1	2	5	2	5	0	1	1	1	0	0	0	0	56
27	18	4	1	6	12	0	3	1	1	1	1	7	2	3	1	1	0	0	0	1	63
28	20	7	6	15	10	3	8	8	7	2	2	8	0	2	0	3	1	0	2	2	104
29	26	7	5	14	14	4	5	9	9	2	4	14	0	2	0	3	4	1	2	2	125
30	28	9	3	8	17	7	5	8	13	3	1	9	6	4	1	3	2	1	2	2	130
31	37	8	8	11	8	6	3	4	3	0	6	8	5	4	0	3	3	3	3	5	125
32	24	4	4	9	8	10	4	5	4	1	5	4	8	3	0	5	6	2	4	4	110
33	20	3	1	16	8	12	2	4	4	5	5	6	3	3	1	3	4	4	0	106	
34	21	3	2	21	6	6	3	6	6	6	1	3	9	7	1	3	4	1	2	111	
35	34	4	10	27	4	2	4	4	4	5	4	11	3	1	3	8	0	7	136		
36	34	6	2	24	9	9	2	6	9	6	4	9	3	1	4	11	2	6	151		
37	25	1	2	17	9	2	5	6	3	3	3	5	6	3	0	3	10	2	6	111	
38	21	2	2	27	7	3	9	3	2	1	10	3	4	4	1	5	9	4	1	118	
39	21	1	7	25	10	5	4	4	3	1	6	7	5	0	7	16	4	5	137		
40	19	2	1	33	11	3	7	8	5	2	7	2	11	4	0	5	20	5	7	152	
41	24	1	2	42	9	4	7	6	0	4	2	3	12	1	0	5	17	4	2	145	
42	16	3	5	35	13	7	14	5	1	4	7	2	13	4	0	7	24	4	4	168	
43	24	1	5	43	16	5	9	9	2	2	3	5	6	3	1	7	24	4	1	170	
44	12	1	2	55	14	6	13	6	4	3	7	1	3	7	0	2	28	6	1	171	
45	24	6	4	42	10	7	11	5	3	4	7	1	5	3	1	6	16	0	3	158	
46	25	3	4	41	12	5	14	7	1	3	4	2	2	2	0	2	12	1	3	143	
47	24	2	3	48	11	4	22	3	1	2	3	2	6	6	1	6	23	6	3	176	
48	17	4	5	27	4	10	21	2	3	3	7	4	4	4	0	8	16	8	1	148	
49	11	0	2	29	12	4	11	7	1	2	8	4	4	6	0	3	16	9	2	129	
50	13	1	2	25	6	5	7	2	1	2	8	2	2	10	0	5	13	2	3	109	

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Appendix G.4. (page 2 of 2)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
51	9	0	1	19	9	7	5	0	1	2	6	1	1	3	1	6	15	5	2	93	
52	10	3	0	15	6	8	4	2	0	3	8	2	0	2	2	1	12	2	2	82	
53	9	6	0	21	4	6	5	1	0	0	10	0	3	3	0	1	10	4	1	84	
54	12	0	2	17	7	1	3	2	0	1	3	4	0	0	3	2	11	5	0	73	
55	5	6	1	10	5	5	4	3	0	2	7	4	1	2	1	5	6	0	0	67	
56	11	2	1	11	4	2	6	3	0	0	1	3	1	1	1	3	8	7	1	66	
57	6	4	0	7	3	1	3	3	0	3	8	2	2	3	1	3	9	2	1	61	
58	10	1	3	9	7	1	1	1	0	0	0	1	0	3	1	1	9	7	0	58	
59	9	1	1	4	6	2	5	0	0	0	4	1	1	2	0	4	8	2	1	51	
60	8	1	3	5	2	0	1	0	0	4	3	2	0	3	1	3	12	2	0	50	
61	9	0	1	8	2	1	1	0	0	1	1	0	0	1	2	2	8	2	1	40	
62	4	0	1	4	2	3	1	0	0	2	0	0	0	0	1	1	4	2	1	26	
63	3	0	2	2	0	0	2	0	0	0	1	2	0	0	0	0	8	1	0	21	
64	5	0	0	4	2	0	2	0	0	1	1	1	0	0	0	0	4	1	0	22	
65	7	0	0	5	0	1	2	0	0	0	2	0	2	3	1	2	2	0	0	27	
66	4	0	1	2	1	4	2	0	0	0	0	3	0	3	1	1	0	1	1	24	
67	3	0	0	2	3	1	1	0	0	0	1	0	1	2	1	0	4	0	2	21	
68	1	0	1	2	1	0	1	0	0	0	1	3	1	0	2	0	0	1	0	14	
69	7	2	0	0	2	0	1	0	0	0	0	4	2	0	0	0	2	0	0	20	
70	5	2	0	3	1	1	0	0	0	0	0	1	2	0	1	0	1	1	0	18	
71	2	1	0	1	0	2	1	1	0	0	0	5	1	1	1	1	0	1	1	19	
72	4	0	0	0	0	0	2	0	0	0	1	1	1	1	1	0	2	0	0	13	
73	2	0	0	1	1	1	0	0	0	0	2	1	0	0	0	1	3	0	2	14	
74	4	0	0	3	0	0	2	0	0	0	0	1	0	0	0	0	1	2	1	16	
75	3	0	2	0	1	0	0	0	0	0	0	1	0	1	0	0	3	0	0	11	
76	0	0	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5	
77	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	
78	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	3	
79	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
	848	129	125	836	393	213	266	277	129	129	184	246	159	181	37	166	481	132	99	5030	

List of Area Groups:

- | | | |
|--------------------|----------------------|-----------------------|
| 1 SHELIKOF | 8 SITKINAK ISL | 15 INNER MARMOT BAY |
| 2 MARMOT OFFSHORE | 10 ALITAK BAY | 16 MALINA-RASPBERRY |
| 3 CHINIAK OFFSHORE | 11 CHINIAK BAY | 17 UGAK BAY |
| 4 BARNABAS | 12 KILIUDA BAY | 18 SOUTHWEST OFFSHORE |
| 5 TWOHEADED | 13 KUPREANOF-VIEKODA | 19 MARMOT-IZHUT BAY |
| 6 ALITAK FLATS | 14 UGANIK BAY | 20 UYAK BAY |
| 7 GESE ISLANDS | | |

Appendix G.5. Pollock lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
14	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	8
17	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	5
18	7	0	0	0	1	0	0	0	1	0	0	0	3	0	0	1	0	0	0	0	13
19	13	0	0	0	0	0	0	1	0	0	0	0	6	0	0	1	0	0	0	0	21
20	9	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	0	2	0	0	16
21	14	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	2	6	0	0	25
22	10	0	0	0	0	0	0	0	9	0	0	0	3	0	0	0	5	17	0	0	44
23	5	1	0	1	0	0	0	0	13	0	0	0	3	0	0	0	12	13	0	0	48
24	6	0	0	1	0	0	0	0	3	0	0	0	7	0	0	0	14	5	0	0	36
25	5	0	0	5	0	0	0	0	15	0	0	0	2	0	0	0	8	3	0	0	44
26	6	0	0	3	0	0	0	0	10	0	0	0	7	2	0	0	6	0	0	0	36
27	7	0	0	3	0	0	0	0	9	0	0	0	5	1	0	0	0	0	0	0	4
28	11	0	0	0	0	0	0	0	7	0	0	0	1	5	0	0	0	1	0	0	28
29	6	0	0	1	0	0	0	0	5	0	0	0	4	2	0	0	0	0	0	0	3
30	4	0	0	0	0	0	0	0	8	0	0	0	3	4	0	1	0	0	0	0	22
31	5	0	0	0	0	0	0	0	8	0	0	0	2	1	0	0	1	0	0	0	19
32	5	0	0	0	0	0	0	0	5	0	0	0	2	3	4	0	0	0	0	0	21
33	5	0	0	0	0	0	0	0	7	0	0	0	2	1	2	0	2	0	0	0	23
34	14	0	0	0	0	0	0	0	9	1	1	0	1	0	1	0	3	0	0	0	30
35	11	0	0	0	0	0	1	0	18	1	1	0	0	1	1	3	0	0	0	0	37
36	13	0	0	0	0	0	0	0	30	0	0	2	3	0	0	3	0	0	0	0	51
37	11	0	0	0	0	0	0	0	54	0	0	4	1	1	0	1	0	0	0	0	1
38	18	0	0	0	0	0	1	0	58	0	0	1	2	5	0	1	0	0	0	0	90
39	22	1	0	0	0	0	11	0	63	0	0	1	4	7	0	4	4	0	0	0	120
40	20	1	0	0	1	16	1	0	55	0	0	0	6	9	0	2	2	1	2	0	116
41	28	3	0	2	1	13	1	0	59	0	0	2	10	29	1	6	2	0	0	4	161
42	26	3	0	5	2	29	3	1	71	0	0	3	15	38	3	6	5	0	1	7	218
43	32	2	3	9	5	39	9	1	68	0	0	4	27	39	1	6	3	1	0	12	261
44	39	10	4	15	8	46	13	0	64	1	4	29	56	3	12	7	2	2	8	323	
45	55	12	4	28	16	53	14	2	64	4	6	30	64	6	18	7	3	3	11	400	
46	56	11	11	46	17	83	21	6	52	0	3	47	61	4	15	12	0	5	14	464	
47	53	7	13	58	33	70	16	3	46	6	3	38	64	14	17	14	6	2	15	478	
48	61	13	24	72	37	78	32	4	26	7	5	34	52	16	25	20	7	2	17	532	
49	64	14	19	68	49	71	35	6	34	7	9	46	48	19	18	19	5	8	13	552	
50	52	12	18	74	54	60	38	5	28	2	8	34	43	22	15	7	8	7	13	500	
51	65	9	17	78	67	55	22	9	32	7	11	39	33	19	10	10	11	8	18	520	
52	53	14	13	72	58	42	25	7	23	6	10	16	31	30	8	21	8	19	13	469	
53	52	5	11	37	50	29	31	0	35	2	11	35	26	26	5	17	9	9	18	408	
54	27	6	3	37	58	17	17	4	19	6	13	15	25	32	5	8	9	21	10	332	
55	32	8	6	33	44	14	22	0	25	4	15	16	22	21	2	11	10	13	7	305	

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Appendix G.5. (page 2 of 2)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
56	36	7	3	28	35	18	15	0	23	7	12	17	12	20	4	9	12	13	4	275	
57	27	3	3	23	23	16	24	3	25	7	11	15	14	16	5	8	12	16	7	258	
58	23	2	0	22	22	10	21	0	16	3	20	10	11	13	4	4	10	10	4	205	
59	10	3	1	27	19	5	23	0	24	4	10	7	15	8	2	8	8	11	4	189	
60	8	2	0	30	17	3	29	1	19	4	10	7	14	7	0	13	3	8	6	181	
61	14	1	0	19	15	2	28	1	12	0	11	13	17	3	0	11	6	5	3	161	
62	9	4	1	13	13	3	25	1	13	0	11	7	12	7	1	4	6	6	1	137	
63	6	0	0	12	12	2	13	1	7	1	10	9	7	6	1	10	2	2	2	103	
64	5	0	0	12	14	2	7	0	13	1	16	8	8	6	2	6	0	3	4	107	
65	1	1	0	3	12	1	9	0	12	0	7	4	6	4	0	4	3	2	0	69	
66	1	0	0	3	13	1	9	0	9	0	8	3	2	5	0	5	1	1	0	61	
67	2	0	0	1	3	1	1	0	9	0	6	0	1	6	0	10	0	2	1	43	
68	3	0	0	0	0	0	5	0	3	0	5	1	2	3	0	3	0	0	0	25	
69	0	0	0	1	4	0	0	0	4	0	3	0	1	2	0	2	0	0	1	18	
70	2	0	0	0	0	1	0	2	0	3	0	0	0	2	0	4	0	0	0	17	
71	0	0	0	0	2	0	1	0	3	0	3	1	2	2	0	3	0	0	0	17	
72	0	0	0	0	0	0	1	0	2	0	4	2	0	4	0	1	0	0	0	14	
73	0	0	0	0	0	0	0	0	2	0	1	0	0	3	0	2	0	0	0	8	
74	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	
75	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	
76	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	
77	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	3	
78	0	0	0	0	1	0	0	0	0	0	2	1	0	1	0	1	0	0	0	6	
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
80	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
84	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
	1078	155	154	844	706	792	515	56	1236	81	282	610	800	340	210	330	212	181	248	8830	

List of Area Groups:

1 SHELIKOF
2 MARMOT OFFSHORE
3 CHINIAK OFFSHORE
4 BARNABAS
5 TWOHEADED
6 ALITAK FLATS
7 GEESE ISLANDS

8 SITKINAK ISL
10 ALITAK BAY
11 CHINIAK BAY
12 KILIUDA BAY
13 KUPREANOF-VIEKODA
14 UGANIK BAY

15 INNER MARMOT BAY
16 MALINA-RASPBERRY
17 UGAK BAY
18 SOUTHWEST OFFSHORE
19 MARMOT-IZHUT BAY
20 UYAK BAY

Appendix G.6. Cod lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
6	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
24	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
25	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
26	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
31	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
32	2	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	5
33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
34	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	4
35	0	0	0	0	1	0	0	0	0	0	0	3	0	3	0	3	0	0	0	0	10
36	2	0	0	1	0	0	0	0	0	0	1	0	6	1	2	0	3	1	0	0	17
37	6	0	0	0	1	0	0	2	0	0	1	0	7	2	1	0	5	0	0	0	26
38	5	0	0	2	0	0	0	0	2	0	1	0	11	1	5	0	5	0	0	0	34
39	10	0	0	3	0	0	0	3	1	0	3	0	12	2	3	0	5	2	3	0	47
40	13	1	2	3	1	0	0	0	0	1	9	0	20	1	4	0	2	0	1	1	58
41	14	0	1	3	2	0	0	1	0	3	0	0	18	4	7	1	6	0	1	2	60
42	17	1	2	2	2	1	0	0	0	2	0	5	0	13	1	2	0	4	0	2	55
43	17	2	2	2	4	0	0	2	3	0	4	1	16	3	0	0	4	0	0	0	54
44	23	2	2	2	6	0	0	0	2	0	1	0	12	4	7	0	6	1	2	2	75
45	24	2	2	6	0	0	0	2	0	1	0	0	14	1	2	0	4	0	0	0	60
46	23	0	3	1	0	0	0	2	1	1	1	0	8	6	4	1	0	0	0	0	53
47	13	0	4	3	3	0	0	0	3	0	6	0	7	5	4	0	1	0	0	0	52
48	12	2	1	2	1	0	0	1	1	0	2	0	8	2	3	0	2	1	0	1	39
49	10	1	2	4	1	0	1	6	0	2	2	0	7	4	4	0	4	2	4	1	55
50	5	0	0	1	0	1	1	3	3	0	1	0	1	3	2	2	2	5	0	1	25
51	5	0	1	1	2	1	1	3	1	0	2	3	1	1	0	0	2	5	0	0	28
52	14	1	1	2	5	0	1	1	3	0	1	1	4	7	2	0	1	7	0	0	50
53	7	0	3	4	1	1	1	1	3	2	1	1	5	4	2	2	2	1	10	1	51
54	8	0	1	6	4	0	2	4	3	0	0	2	1	7	0	0	1	3	1	0	47
55	13	1	3	6	5	2	6	5	1	2	2	4	4	4	2	5	1	3	0	1	76
56	9	0	1	3	1	2	4	4	1	2	2	4	4	4	1	1	3	7	1	2	48
57	17	0	2	10	2	2	4	2	2	4	2	4	4	5	6	1	0	3	7	1	73
58	10	1	3	2	4	3	3	5	4	2	2	1	3	3	1	1	2	2	13	2	63
59	12	2	4	9	5	2	3	7	4	1	4	2	2	5	0	2	3	11	2	1	79
60	30	0	1	7	7	0	10	4	10	0	2	3	8	7	1	4	7	4	4	4	109
61	18	0	2	14	3	2	4	3	5	4	4	8	6	6	7	1	7	19	3	2	114
62	13	4	1	7	11	2	6	2	6	3	2	4	4	0	0	4	13	4	0	88	
63	22	3	2	10	6	1	6	5	9	2	3	3	8	2	0	5	14	3	2	108	
64	16	1	5	15	6	2	11	4	9	4	3	3	6	7	4	0	4	17	3	3	120
65	10	3	3	9	6	4	6	1	11	3	5	10	6	6	6	2	4	10	4	2	105
66	17	3	2	14	9	2	9	1	12	2	2	6	5	5	6	1	11	11	3	0	108
67	16	2	2	9	6	2	6	4	9	4	5	10	5	6	1	0	10	17	0	3	108
68	11	2	3	6	8	3	1	5	12	2	2	10	5	1	6	1	7	13	2	0	86
69	8	2	0	7	6	4	4	0	10	2	2	10	5	1	6	1	5	13	2	0	86

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Appendix G.6. (page 2 of 2)

LENGTH (CM)	AREA GROUP																				TOTAL
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20		
70	6	1	0	6	4	1	3	2	4	3	1	3	4	1	0	7	13	2	3	64	
71	7	1	2	2	7	2	4	1	5	4	4	1	2	2	2	5	6	1	0	58	
72	4	1	2	3	7	3	0	0	4	2	3	1	2	2	1	7	5	1	0	48	
73	4	1	3	1	8	1	0	1	6	2	3	0	0	2	0	3	5	0	1	41	
74	3	1	2	3	4	2	1	1	3	1	5	0	1	3	1	4	0	1	2	38	
75	1	1	2	3	1	2	0	1	3	1	1	0	1	1	0	2	0	0	0	20	
76	1	0	0	3	2	1	0	0	2	3	4	1	2	0	0	2	0	2	0	23	
77	2	1	2	1	1	0	0	0	1	2	0	0	0	2	1	4	3	1	1	22	
78	1	1	0	0	2	0	0	0	1	0	4	0	2	1	0	1	0	0	0	13	
79	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	
80	0	0	1	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	0	6	
81	0	0	0	1	1	0	0	0	1	0	0	1	0	1	0	1	2	0	0	8	
82	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
83	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	4	
84	0	0	0	3	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	6	
85	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	
86	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	
87	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	5	
89	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
90	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
94	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
95	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
97	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	492	44	86	209	146	49	117	93	145	109	110	239	141	127	27	176	254	59	42	2665	

List of Area Groups:

- | | | |
|--------------------|----------------------|-----------------------|
| 1 SHELIKOF | 8 SITKINAK ISL | 15 INNER MARMOT BAY |
| 2 MARMOT OFFSHORE | 10 ALITAK BAY | 16 MALINA-RASPBERRY |
| 3 CHINIAK OFFSHORE | 11 CHINIAK BAY | 17 UGAK BAY |
| 4 BARNABAS | 12 KILIUDA BAY | 18 SOUTHWEST OFFSHORE |
| 5 TWOHEADED | 13 KUPREANOF-VIEKODA | 19 MARMOT-IZHUT BAY |
| 6 ALITAK FLATS | 14 UGANIK BAY | 20 UYAK BAY |
| 7 GEESE ISLANDS | | |

Appendix G.7. Rock sole lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																			TOTAL
	1	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	20			
7	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	4	
8	0	0	0	0	0	0	0	1	2	0	0	2	0	0	0	0	0	0	5	
9	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	
10	0	0	0	0	0	0	0	0	1	0	3	2	0	0	0	0	0	0	6	
11	0	0	0	0	0	0	0	3	0	0	1	1	0	0	0	0	0	0	5	
12	0	0	0	0	0	0	0	5	2	1	0	5	0	0	0	0	0	0	13	
13	0	0	0	0	0	0	0	1	6	0	0	0	0	0	1	0	0	0	8	
14	0	0	0	0	0	0	0	0	11	0	0	1	0	0	0	0	0	0	13	
15	0	0	0	0	0	0	0	0	9	0	1	1	0	0	0	1	0	0	12	
16	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	1	0	8	
17	0	0	0	0	0	0	0	0	3	1	0	1	0	0	0	0	0	0	5	
18	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	4	
19	0	0	1	0	0	0	0	0	6	0	0	1	0	0	0	0	1	0	9	
20	0	0	0	0	0	0	0	0	8	0	1	3	0	0	0	0	2	0	14	
21	0	0	1	1	1	0	0	0	4	2	0	0	0	0	0	1	1	0	11	
22	0	0	1	1	1	0	0	0	1	4	1	0	0	0	0	2	2	0	13	
23	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	2	0	17	
24	0	0	0	2	0	0	0	0	0	3	1	2	1	0	0	0	1	0	10	
25	1	2	0	0	0	0	0	0	0	5	1	3	2	0	0	0	5	3	0	
26	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	4	3	0	13	
27	0	0	2	0	0	1	1	0	5	0	5	0	0	0	0	6	0	0	20	
28	0	0	2	0	0	0	0	0	3	2	8	3	0	0	0	6	1	0	25	
29	0	1	3	1	1	0	0	0	3	1	14	0	0	0	0	6	2	0	31	
30	0	3	3	3	0	0	0	1	7	0	10	4	1	0	0	7	3	0	39	
31	1	2	1	1	1	1	1	2	0	6	12	6	0	0	0	1	2	0	37	
32	1	0	2	4	0	1	0	0	3	4	10	6	0	0	0	3	2	2	38	
33	1	2	4	2	0	1	0	0	7	0	8	7	0	0	0	9	2	0	43	
34	1	0	3	1	1	1	2	1	2	3	4	4	3	0	0	2	1	0	29	
35	2	0	6	1	1	1	3	2	0	2	1	8	7	0	0	5	3	0	41	
36	0	1	5	6	1	1	4	3	0	4	3	7	8	0	0	4	2	0	48	
37	0	3	3	1	2	1	1	1	0	1	3	6	9	2	0	5	2	0	39	
38	0	3	4	2	2	0	0	5	1	1	1	3	2	2	0	8	2	0	36	
39	0	1	4	2	0	1	2	0	1	4	2	4	0	0	0	2	3	0	26	
40	2	0	0	2	0	1	3	1	1	0	1	2	1	0	0	3	3	0	18	
41	0	1	0	0	0	2	0	4	0	1	1	1	1	0	0	4	6	0	23	
42	1	0	0	0	0	2	0	1	0	0	0	0	0	0	0	5	0	0	9	
43	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	2	7	0	13	
44	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	6	0	11	
45	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	1	2	0	7	

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Appendix G.7. (page 2 of 2)

LENGTH (CM)	AREA GROUP																		TOTAL
	1	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	20		
46	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	0	6	
48	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3	
	12	19	45	28	15	19	35	14	138	33	115	87	10	1	90	73	2	736	

List of Area Groups:

1 SHELIKOF
3 CHINIAK OFFSHORE
4 BARNABAS
5 TWOHEADED
6 ALITAK FLATS
7 GEESE ISLANDS

8 SITKINAK ISL
10 ALITAK BAY
11 CHINIAK BAY
12 KILIUDA BAY
13 KUPREANOF-VIEKODA
14 UGANIK BAY

15 INNER MARMOT BAY
16 MALINA-RASPBERRY
17 UGAK BAY
18 SOUTHWEST OFFSHORE
20 UYAK BAY

Appendix G.8. Rougheye rockfish lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP															TOTAL
	1	2	3	4	5	7	10	12	13	14	15	17	18	19	20	
10	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
18	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
19	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	3
21	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
22	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
23	1	0	0	1	1	1	0	0	0	0	0	0	1	0	0	5
24	8	0	0	0	0	0	1	0	0	0	0	0	0	0	0	9
25	6	0	0	3	1	2	0	0	0	0	0	0	1	0	0	13
26	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	7
27	7	0	0	1	5	0	0	0	0	0	0	0	0	1	0	14
28	3	0	0	3	3	2	0	0	0	0	0	0	1	2	1	15
29	9	0	0	2	5	2	0	0	0	0	0	0	0	0	0	18
30	7	0	0	0	4	1	0	0	0	0	0	0	2	1	0	15
31	8	0	0	3	9	1	0	0	0	0	0	1	1	1	0	24
32	3	0	0	1	9	0	0	0	0	0	1	0	0	1	0	15
33	7	0	0	1	8	2	1	2	0	0	0	1	1	1	0	24
34	6	0	0	3	8	2	1	3	0	1	3	1	1	2	0	31
35	9	0	0	3	7	3	3	0	0	0	2	1	2	4	0	34
36	10	0	0	2	5	9	1	1	0	0	3	0	0	1	0	32
37	11	0	0	4	2	13	1	1	0	0	0	2	2	2	0	38
38	10	0	0	3	3	8	1	0	0	0	0	3	3	1	0	32
39	13	1	1	2	3	9	1	0	0	0	0	2	0	1	0	33
40	11	0	0	2	0	9	0	1	0	0	0	0	1	2	0	26
41	5	0	1	3	1	2	0	0	2	0	0	0	0	0	1	15
42	2	1	0	4	1	3	0	0	1	1	0	0	0	0	1	14
43	0	1	0	0	2	1	0	0	2	0	0	0	2	0	0	8
44	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	3
45	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	4
46	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
47	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
49	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
50	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
55	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1

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Appendix G.8. (page 2 of 2)

LENGTH (CM)	AREA GROUP														TOTAL	
	1	2	3	4	5	7	10	12	13	14	15	17	18	19	20	
57	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
81	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	144	4	2	44	82	72	10	11	6	2	9	14	30	19	2	451

List of Area Groups:

- | | | |
|--------------------|----------------------|-----------------------|
| 1 SHELIKOF | 7 GEESE ISLANDS | 15 INNER MARMOT BAY |
| 2 MARMOT OFFSHORE | 10 ALITAK BAY | 17 UGAK BAY |
| 3 CHINIAK OFFSHORE | 12 KILIUDA BAY | 18 SOUTHWEST OFFSHORE |
| 4 BARNABAS | 13 KUPREANOF-VIEKODA | 19 MARMOT-IZHUT BAY |
| 5 TWOHEADED | 14 UGANIK BAY | 20 UYAK BAY |

Appendix G.9. Pacific ocean perch lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP			TOTAL
	1	4	18	
32	1	1	0	2
33	0	0	1	1
34	0	0	2	2
35	0	0	1	1
40	0	0	2	2
41	0	0	5	5
42	0	0	12	12
43	0	0	7	7
44	0	0	1	1
45	0	0	3	3
48	0	0	1	1
54	1	0	0	1
	2	1	35	38

List of Area Groups:

1 SHELIKOF
 4 BARNABAS
 18 SOUTHWEST OFFSHORE

Appendix G.10. Sablefish lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP																			TOTAL
	1	2	4	5	10	11	12	13	14	15	16	18	19	20						
26	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
27	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
28	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
29	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
33	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
37	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
38	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
39	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
40	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
41	1	0	1	1	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	7
42	1	0	0	2	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	6
43	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
44	0	0	1	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	5
45	0	2	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	9
46	3	1	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9
47	1	0	4	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	9
48	2	1	1	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	8
49	4	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2
50	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
53	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
57	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
58	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
59	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
60	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
62	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
66	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	7
67	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	3
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
69	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	4
70	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	3
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
74	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1

List of Area Groups:

- | | | |
|-------------------|----------------------|-----------------------|
| 1 SHELIKOF | 11 CHINIAK BAY | 15 INNER MARMOT BAY |
| 2 MARMOT OFFSHORE | 12 KILIUDA BAY | 16 MALINA-RASPBERRY |
| 4 BARNABAS | 13 KUPREANOF-VIEKODA | 18 SOUTHWEST OFFSHORE |
| 5 TWOHEADED | 14 UGANIK BAY | 19 MARMOT-IZHUT BAY |
| 10 ALITAK BAY | 20 UYAK BAY | |

Appendix G.11. Butter sole lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP												TOTAL
	3	4	5	6	7	8	10	11	12	17	18	20	
15	0	0	0	0	0	0	0	1	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0	1	0	1
17	0	0	0	1	0	0	1	0	0	0	2	0	4
18	0	0	0	0	0	0	0	1	0	0	1	0	2
19	1	0	0	0	0	0	0	0	0	1	2	0	4
20	0	0	0	0	0	0	1	0	0	0	2	0	3
21	0	0	0	2	0	0	1	0	0	0	5	0	8
22	0	0	0	1	0	0	2	0	1	1	1	0	6
23	0	1	0	2	0	0	0	0	0	3	0	0	6
24	1	0	0	2	0	0	3	0	0	3	1	0	10
25	5	0	1	1	0	3	2	0	2	2	2	0	18
26	9	0	1	1	1	2	3	1	0	3	0	0	21
27	9	2	1	3	0	1	14	1	0	8	0	0	39
28	14	1	4	1	0	3	9	1	0	8	0	0	41
29	30	0	7	2	0	1	15	5	0	14	0	0	74
30	17	2	7	18	1	2	17	4	2	24	2	0	96
31	16	3	5	6	4	1	16	3	1	22	4	1	82
32	21	2	9	10	4	6	5	5	2	20	4	0	88
33	8	3	12	4	5	4	1	3	0	28	5	0	73
34	8	2	7	13	4	3	1	2	2	18	11	0	71
35	4	3	5	10	3	1	1	0	2	20	5	0	54
36	0	0	5	9	1	2	1	1	2	18	5	0	44
37	3	0	4	1	2	0	1	1	2	17	5	0	36
38	1	0	4	0	2	1	0	1	0	8	2	0	19
39	0	1	4	3	2	0	0	0	1	5	0	0	16
40	0	0	0	1	2	2	0	0	1	2	0	0	8
41	0	0	3	0	2	1	0	0	0	2	0	0	8
42	0	1	0	0	4	0	0	0	1	1	0	0	7
43	0	0	1	0	0	1	0	0	0	0	0	0	2

-Continued-

Appendix G.11. (page 2 of 2)

LENGTH (CM)	AREA GROUP												TOTAL
	3	4	5	6	7	8	10	11	12	17	18	20	
44	0	0	0	0	2	0	1	0	0	1	0	0	4
45	0	0	0	0	2	0	0	0	0	0	0	0	2
	147	21	80	91	41	34	95	30	19	229	60	1	848

List of Area Groups:

3 CHINIAK OFFSHORE
4 BARNABAS
5 TWOHEADED
6 ALITAK FLATS

7 GEESE ISLANDS
8 SITKINAK ISL
10 ALITAK BAY
11 CHINIAK BAY

12 KILIUDA BAY
17 UGAK BAY
18 SOUTHWEST OFFSHORE
20 UYAK BAY

Appendix G.12. Dover sole lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

LENGTH (CM)	AREA GROUP															TOTAL
	1	2	3	4	5	7	8	10	12	13	14	16	18	19	20	
21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
26	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
27	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4
28	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3
29	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
30	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
31	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
32	2	0	0	0	3	0	0	1	0	0	0	0	0	0	0	6
33	5	0	0	1	1	0	0	2	0	1	0	0	0	0	0	10
34	2	1	0	0	1	1	0	0	0	1	0	1	0	0	0	7
35	2	0	0	2	0	0	0	0	0	0	0	1	1	0	0	6
36	6	0	0	0	1	2	0	0	0	2	1	0	0	1	0	13
37	7	1	0	3	0	0	0	1	0	3	1	2	0	0	0	18
38	11	1	1	3	1	0	0	3	0	0	0	1	0	1	1	23
39	9	2	0	2	0	0	0	0	0	2	0	3	0	0	0	18
40	6	1	1	1	0	0	0	1	0	1	0	1	1	0	0	13
41	8	0	0	1	0	0	1	0	0	4	0	2	0	0	1	17
42	6	2	0	2	0	0	0	0	1	3	1	3	0	0	0	18
43	8	1	3	4	0	0	1	1	0	2	0	4	0	1	0	25
44	3	2	2	8	0	0	0	0	0	2	1	1	0	1	0	20
45	8	1	2	10	0	0	1	0	0	0	0	1	1	1	0	25
46	7	3	2	5	0	1	0	0	0	1	0	3	0	2	0	24
47	8	2	3	3	1	0	3	0	0	1	0	0	1	2	0	24
48	6	1	3	1	0	0	0	0	1	1	1	0	3	0	0	17
49	3	2	0	4	1	0	1	0	0	0	0	1	1	0	0	13
50	4	1	0	4	0	0	1	0	2	1	0	0	1	0	0	14
51	2	0	0	3	0	1	0	0	0	0	0	0	1	0	0	7
52	1	3	0	8	0	0	1	0	0	0	0	0	0	1	0	14
53	3	0	2	7	0	2	0	0	1	1	0	0	0	0	0	16
54	2	1	0	3	0	0	1	0	2	0	0	0	0	0	0	9
55	1	1	0	2	0	0	0	0	1	1	0	0	1	0	0	7
56	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
57	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
58	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

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Appendix G.12. (page 2 of 2)

LENGTH (CM)	AREA GROUP														TOTAL	
	1	2	3	4	5	7	8	10	12	13	14	16	18	19	20	
59	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
60	0	0	1	2	0	0	0	0	0	0	0	0	2	0	0	5
62	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	3
64	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	131	26	20	87	11	7	10	9	9	32	8	24	16	9	2	401

List of Area Groups:

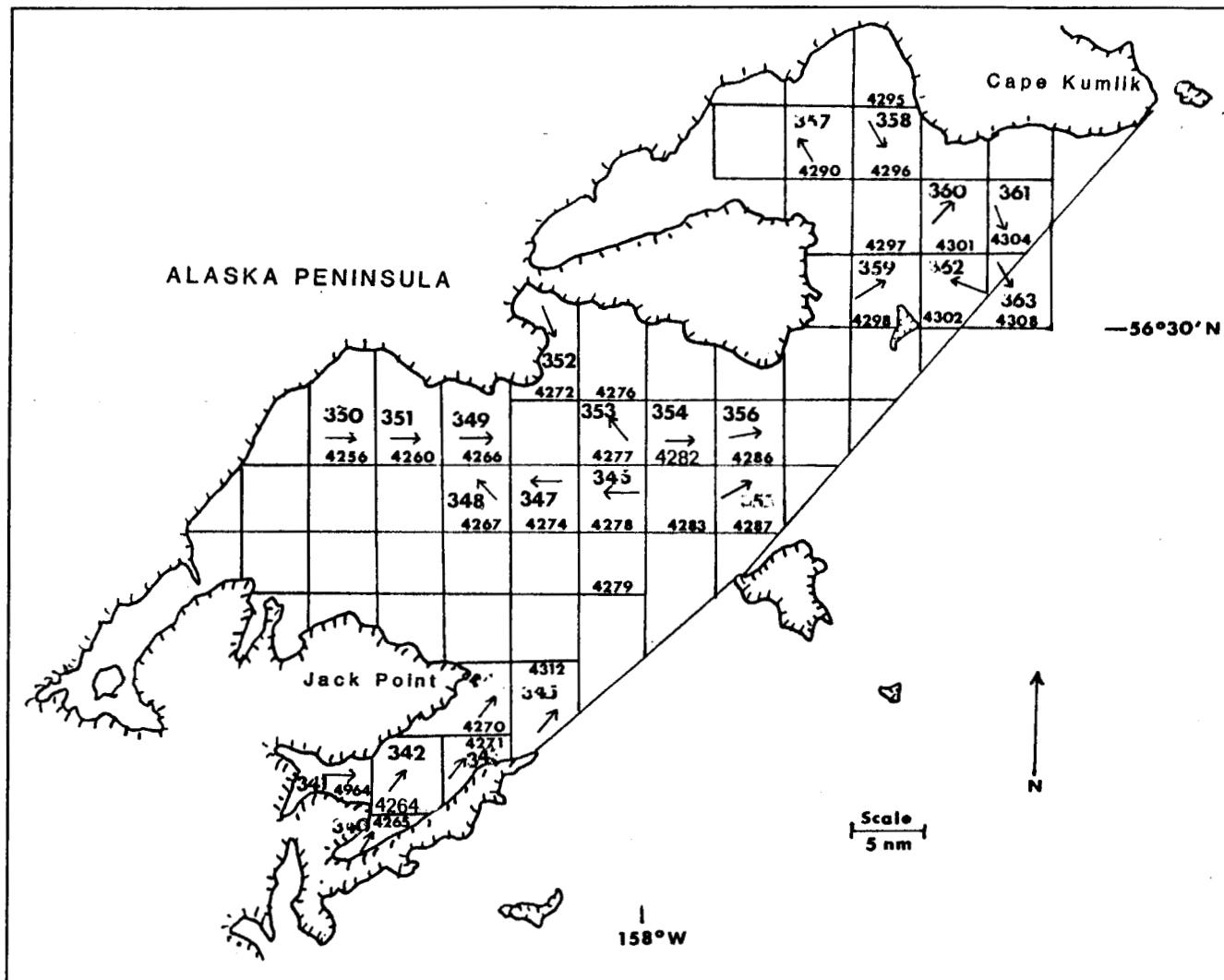
- | | | |
|--------------------|----------------------|-----------------------|
| 1 SHELIKOF | 8 SITKINAK ISL | 16 MALINA-RASPBERRY |
| 2 MARMOT OFFSHORE | 10 ALITAK BAY | 18 SOUTHWEST OFFSHORE |
| 3 CHINIAK OFFSHORE | 12 KILIUDA BAY | 19 MARMOT-IZHUT BAY |
| 4 BARNABAS | 13 KUPREANOF-VIEKODA | 20 UYAK BAY |
| 5 TWOHEADED | 14 UGANIK BAY | |
| 7 GESE ISLANDS | | |

Appendix G.13. Yellowfin sole lengths (cm) by area from a trawl survey of Kodiak Island waters, June through September, 1990.

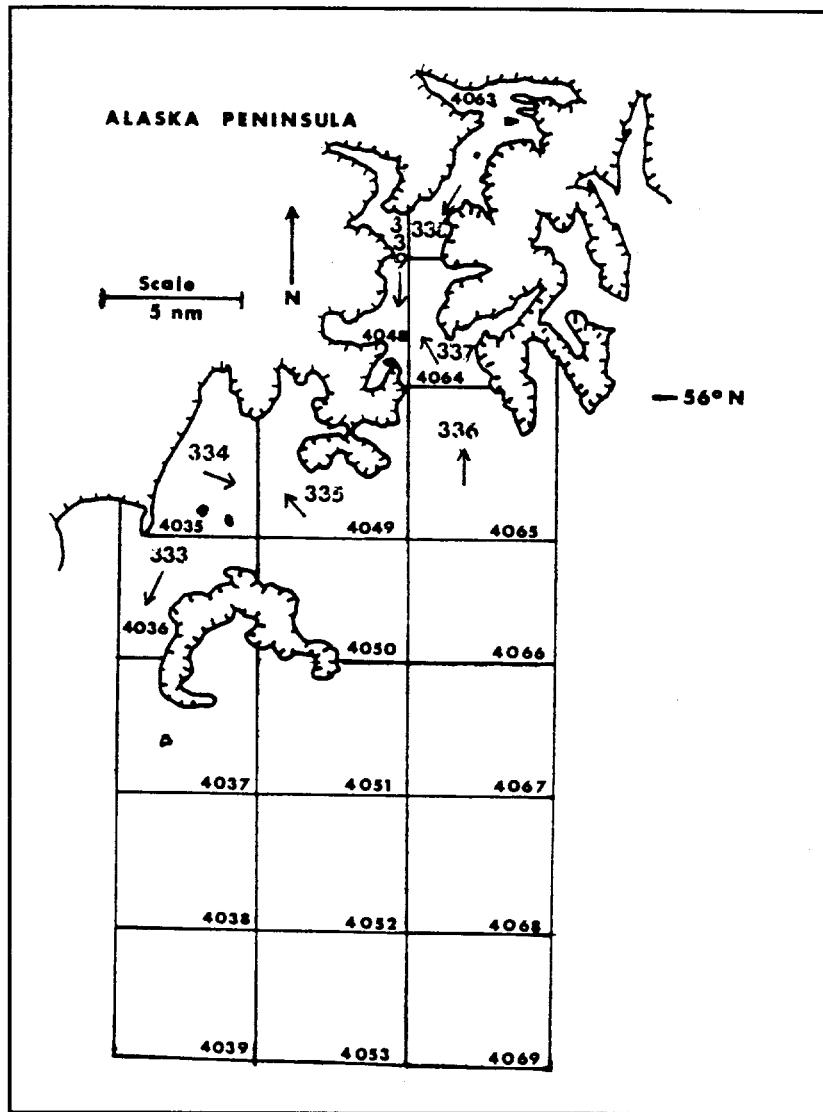
LENGTH (CM)	AREA GROUP												TOTAL
	4	5	6	10	11	12	13	14	15	17	20		
12	0	0	0	0	1	0	0	0	0	0	0	0	1
13	0	0	0	2	0	0	0	0	0	0	0	0	2
14	0	0	0	4	1	0	0	0	0	0	0	0	5
15	0	0	0	5	1	0	0	0	0	0	0	0	6
16	0	0	0	3	0	0	0	0	0	0	0	0	3
17	0	0	0	2	7	0	0	0	0	0	0	0	9
18	0	0	1	1	10	0	0	0	0	0	0	0	12
19	0	0	0	3	16	0	0	0	0	0	0	0	19
20	0	0	0	1	10	0	0	0	0	0	0	0	11
21	0	2	0	0	11	0	0	0	1	0	0	0	14
22	0	1	0	1	6	0	0	0	1	0	0	0	9
23	0	1	0	0	2	0	0	0	0	0	0	0	3
24	0	1	1	0	2	0	1	1	2	0	0	0	8
25	0	3	0	0	5	0	2	0	5	4	0	0	19
26	0	5	2	2	6	0	5	6	3	4	0	0	33
27	0	8	1	8	6	0	5	4	11	8	1	1	52
28	0	12	1	5	4	2	10	11	21	10	2	2	78
29	0	14	2	15	13	4	13	9	28	12	2	2	112
30	0	14	5	18	24	1	16	18	24	7	2	2	129
31	0	17	9	22	12	4	10	14	18	7	1	1	114
32	0	14	7	30	29	2	11	10	17	7	2	2	129
33	0	8	10	25	16	1	12	5	7	6	1	1	91
34	1	9	6	15	16	5	6	2	8	10	1	1	79
35	0	9	3	13	13	4	10	2	9	5	2	2	70
36	1	10	10	14	8	2	2	3	2	8	2	2	62
37	1	5	8	9	4	1	0	1	0	2	2	2	33
38	0	6	8	4	3	0	1	0	1	6	0	0	29
39	0	1	7	3	1	1	0	1	1	4	0	0	19
40	0	0	5	1	3	0	0	0	0	1	0	0	10
41	0	1	0	0	0	0	0	0	0	0	0	0	2
42	1	0	0	0	0	0	0	0	0	2	0	0	3
43	0	0	0	0	0	0	0	0	0	0	0	0	1
	4	141	86	206	230	27	104	87	160	104	18	1167	

List of Area Groups:

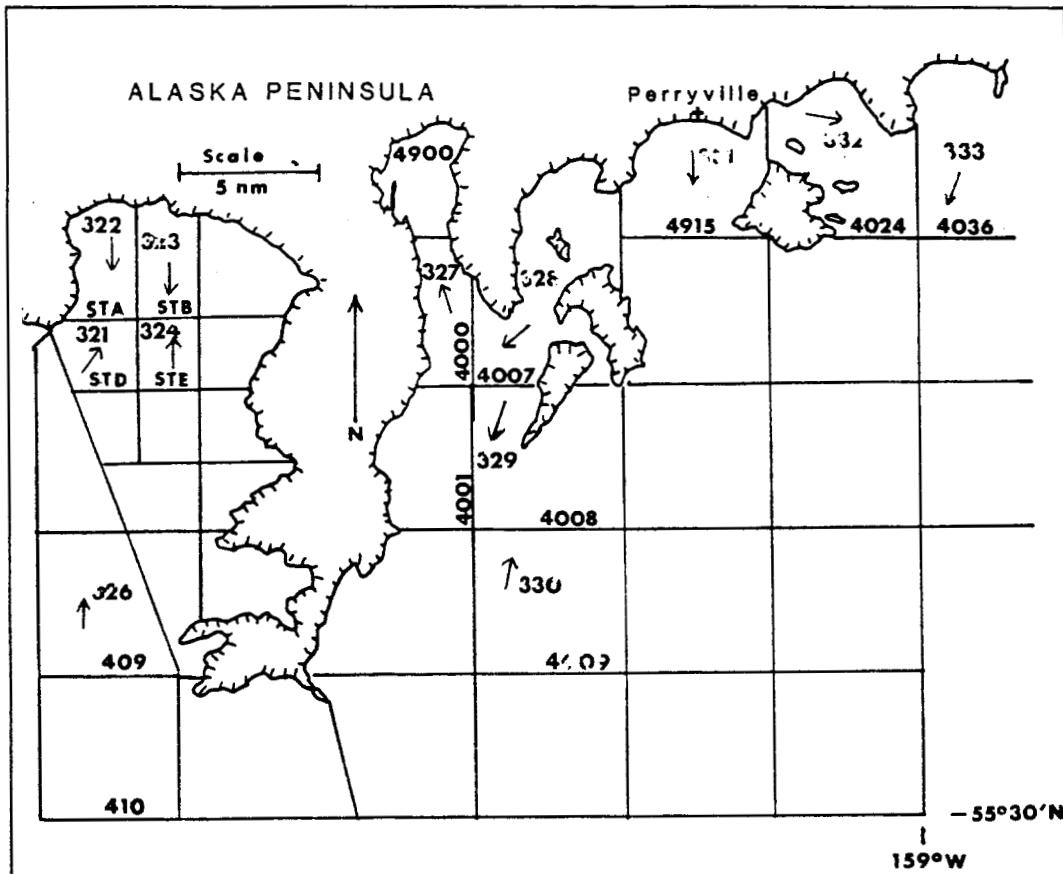
- | | | |
|----------------|----------------------|---------------------|
| 4 BARNABAS | 11 CHINIAK BAY | 15 INNER MARMOT BAY |
| 5 TWOHEADED | 12 KILIUDA BAY | 17 UGAK BAY |
| 6 ALITAK FLATS | 13 KUPREANOF-VIEKODA | 20 UYAK BAY |
| 10 ALITAK BAY | 14 UGANIK BAY | |



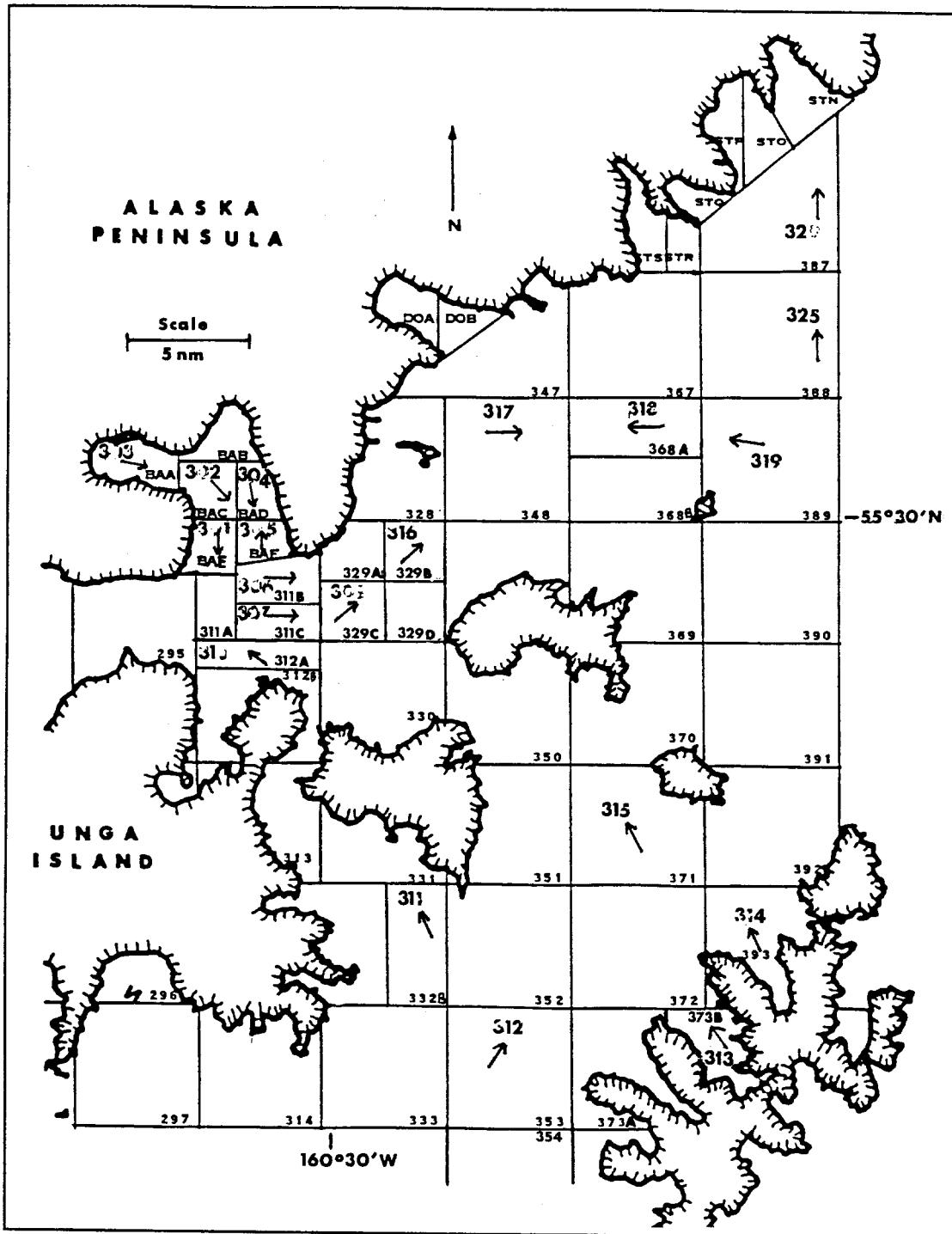
Appendix H.1 Station location and number designations and trawl haul (arrows) location and numbers, Chignik Bay and Kujulik Bay: August 1990.



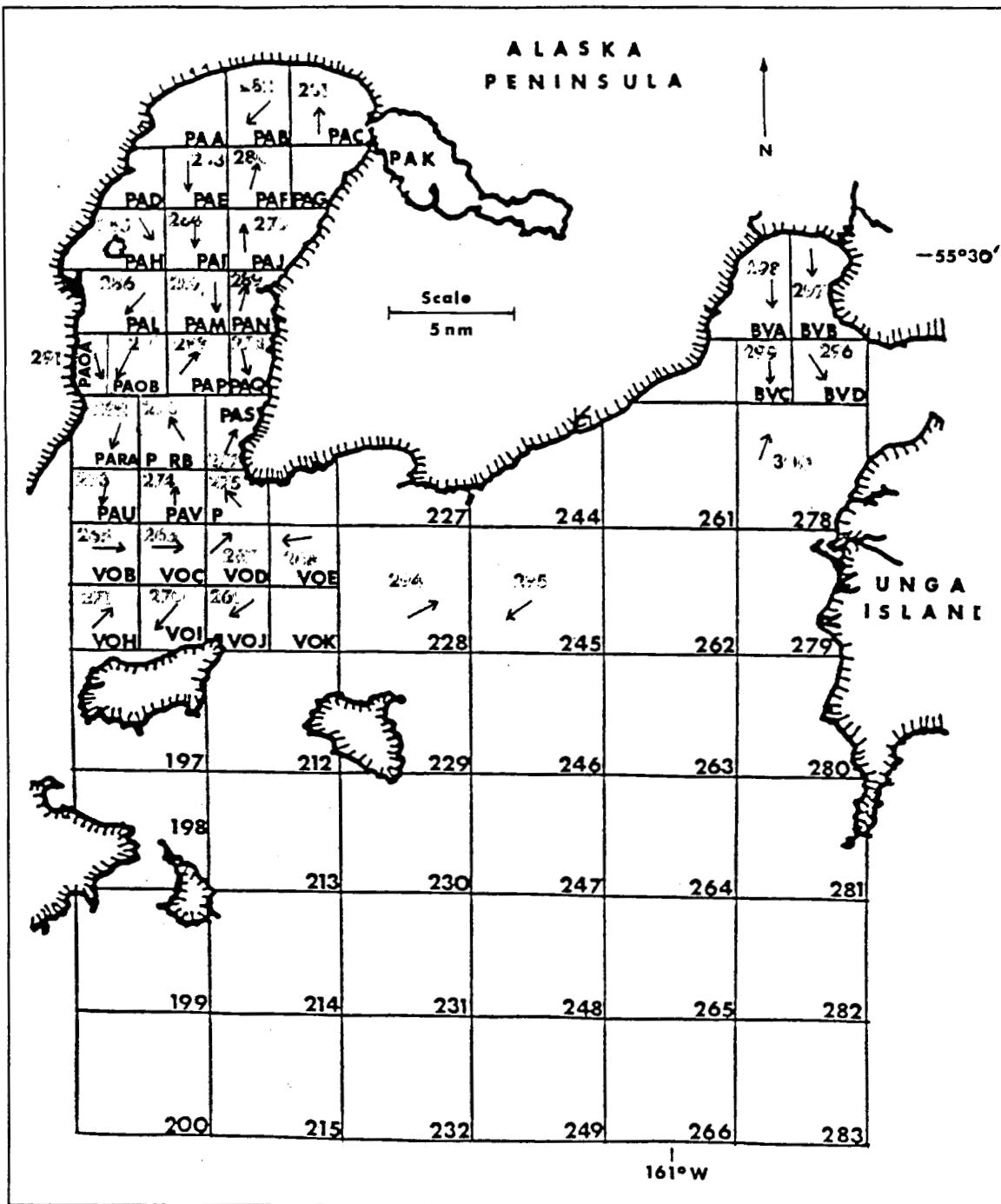
Appendix H.2 Station location and number designations and trawl haul (arrows) locations and numbers, Mitrofania Island area: August 1990.



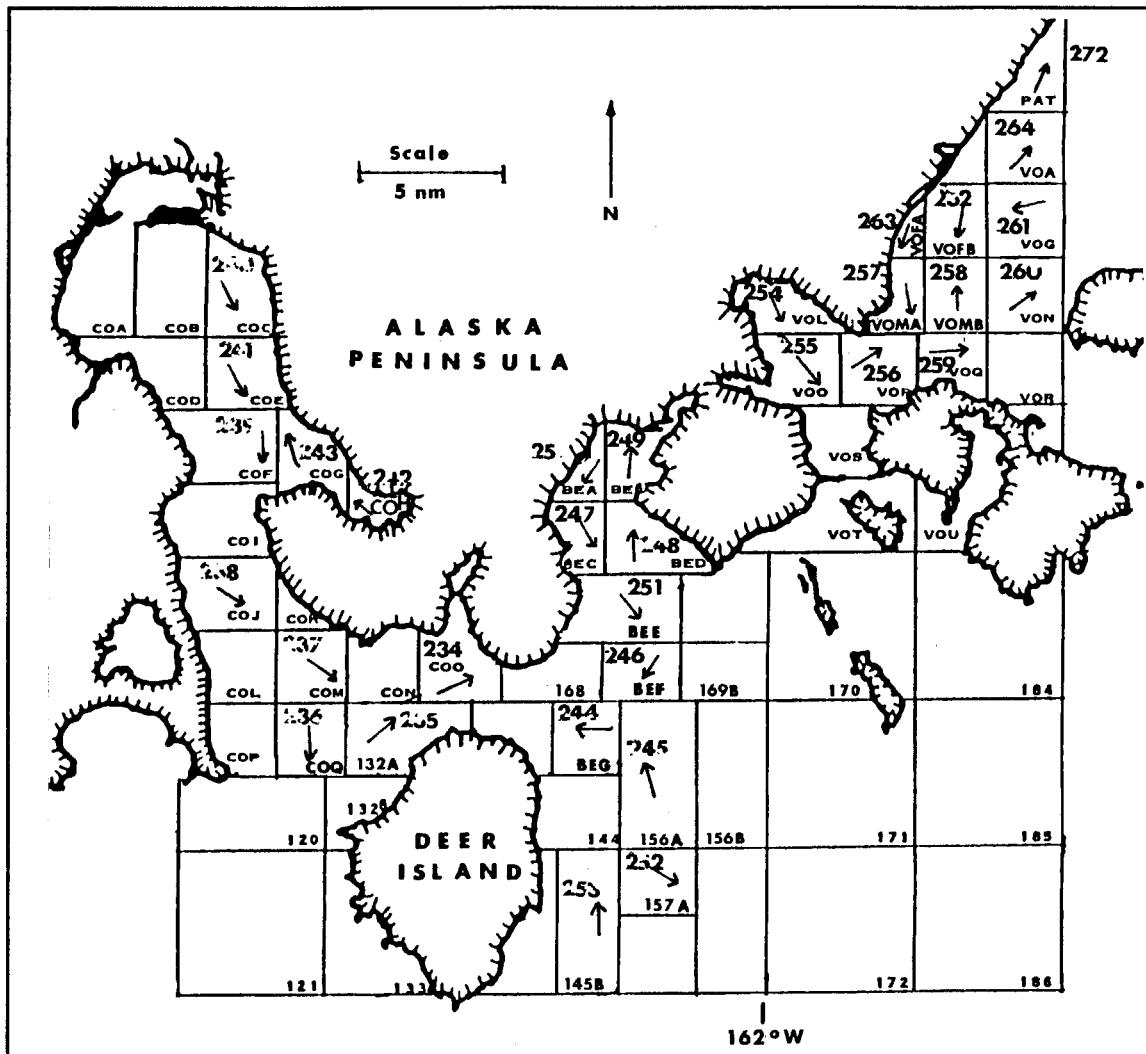
Appendix H.3 Station location and number designations and trawl haul (arrows) locations and numbers, Ivanof Bay and Stepovak Bay: August 1990.



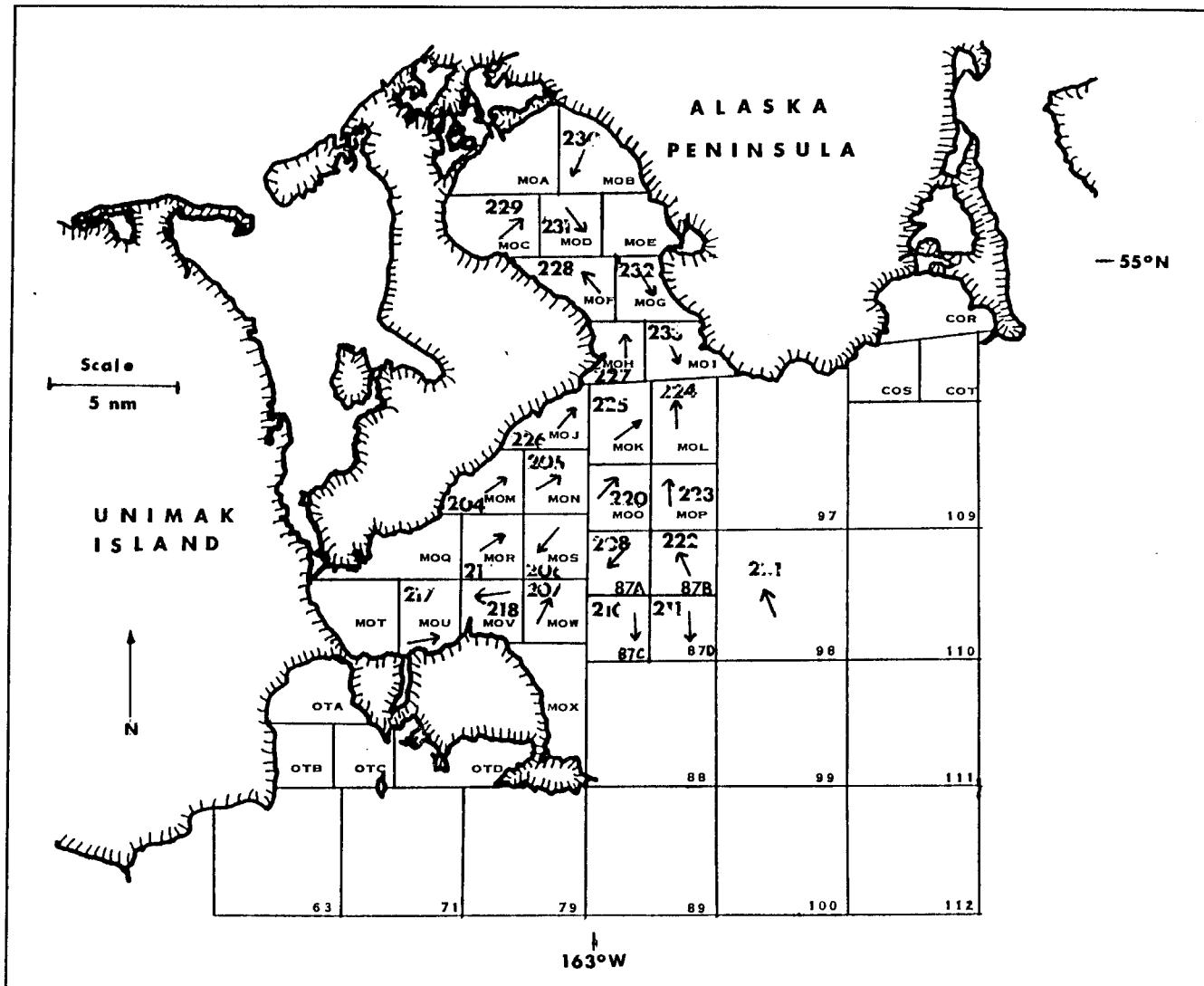
Appendix H.4 Station location and number designations and trawl haul (arrows) locations and numbers, Unga Island area: August 1990.



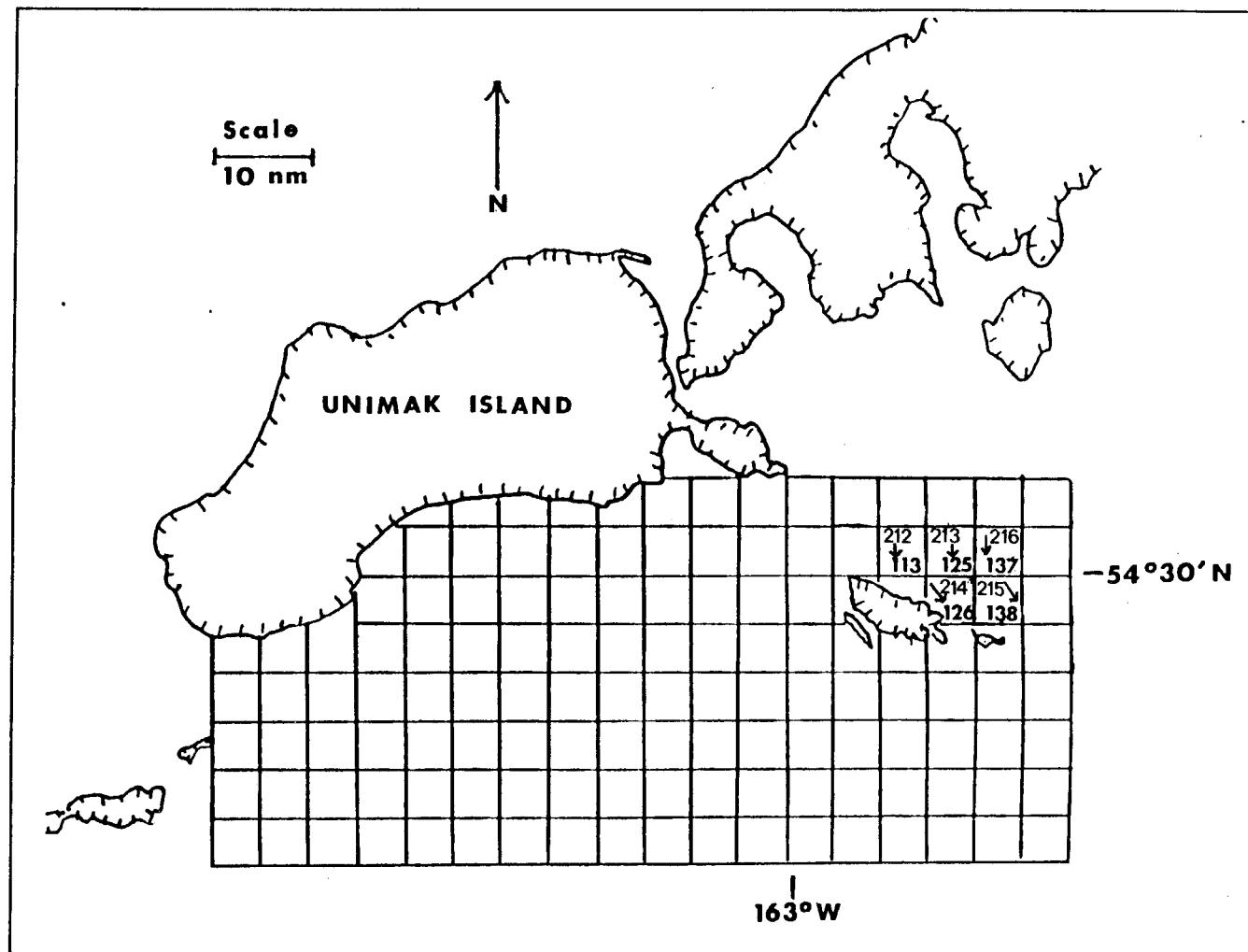
Appendix H.5 Station location and number designations and
trawl haul (arrows) locations and numbers, Pavlof
Bay and Beaver Bay: August 1990.



Appendix H.6 Station location and number designations and trawl haul (arrows) location and numbers, Cold Bay, Belkofski Bay and Volvano Bay: August 1990.



Appendix H.7 Station location and number designations and trawl haul (arrows) location and numbers, Morzhovoi Bay: August 1990.



Appendix H.8 Station location and number designations and trawl haul (arrows)
 location and numbers, Sanak Island area: August 1990.

Appendix I. Numbers of Tanner crab per 1.85 km (1 nautical mile) in 1990 in the South Peninsula Management District with population index by area.

Sta tion	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165 mm	>164mm			
SANAK ISLAND														
113	212	34	0	34	29	0	0	0	0	0	0	0	29	63
125	213	23	0	23	25	4	0	0	0	0	0	0	29	52
126	214	68	0	68	51	2	1	0	0	0	0	0	54	122
137	216	15	25	40	5	14	12	4	0	0	0	0	35	75
138	215	26	2	28	17	2	1	2	0	0	0	0	22	50
Pop Index		544,525	102,533	647,058	412,210	80,760	52,532	22,785	0	0	0	0	568,287	1,215,345
MORZHVOI BAY														
87A	208	12	28	40	5	4	18	16	0	1	0	1	44	84
87B	222	10	16	26	7	1	3	0	0	0	0	0	18	44
87C	210	0	0	0	1	0	0	0	0	0	0	0	1	1
87D	211	55	29	84	35	9	8	1	0	0	0	0	53	136
98C	221	1	1	2	5	0	1	1	0	0	0	0	7	9
MOB	230	12	0	12	22	0	0	0	0	0	0	0	22	34
MOC	229	34	0	34	40	1	0	0	0	0	0	0	41	75
MOD	231	100	1	101	121	1	0	1	0	0	0	0	123	224
MOF	228	258	0	258	294	10	0	0	0	0	0	0	304	562
MOG	232	193	2	195	120	72	10	2	0	0	0	0	204	399
MOH	227	272	22	294	187	118	35	9	0	0	2	2	351	645
MOI	233	224	8	232	100	69	4	4	2	0	0	2	179	411
MOJ	226	61	0	61	61	0	0	0	0	0	0	0	61	122
MOK	225	200	324	524	2	124	148	56	8	16	0	24	354	878
MOL	224	219	135	354	82	133	242	73	12	6	0	18	548	902
MOM	204	0	0	0	0	0	0	0	0	0	0	0	0	0
MON	205	50	2	52	29	19	3	2	0	0	0	0	53	105
MOO	220	30	399	429	5	29	79	33	5	3	0	8	154	583
MOP	223	1	64	65	0	0	0	2	0	0	0	0	2	67
MOR	219	105	0	105	107	40	1	0	0	1	0	1	149	254
MOS	206	265	26	291	240	72	24	4	0	0	0	0	340	631
MOU	217	5	0	5	7	0	0	0	0	0	0	0	7	12
MOV	218	74	0	74	57	1	0	0	0	0	0	0	58	132
MOW	207	0	0	0	1	1	0	0	0	0	0	0	2	2
Pop Index		2,137,939	1,047,225	3,185,164	1,503,423	663,670	551,967	197,960	25,633	25,542	1,489	52,664	2,969,683	6,154,847
COLD BAY/BELKOFSKI														
BEA	250	2	0	2	2	0	0	0	0	0	0	0	2	4
BEB	249	43	0	43	36	3	1	1	0	0	0	0	41	84
BEC	247	14	0	14	20	0	0	0	0	0	0	0	20	34
BED	248	324	6	330	262	84	22	0	2	0	0	2	370	700
BEE	251	118	8	126	113	35	4	0	0	0	0	0	152	278
BEF	246	142	7	149	160	11	1	2	0	0	0	0	174	323
BEG	244	70	0	70	105	4	1	3	1	0	0	1	114	184
COC	240	141	1	142	135	15	1	0	0	0	0	0	151	293
COE	241	244	2	246	93	216	48	21	6	3	0	9	387	633
COF	239	69	9	78	18	39	26	10	8	2	3	13	106	183
COG	243	45	324	369	8	120	272	300	140	96	4	240	940	1,309
COH	242	70	0	70	80	7	0	2	2	0	0	2	91	161
COJ	238	45	0	45	49	4	1	0	0	0	0	0	54	99

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Appendix I. (page 2 of 3)

Station	Tow #	Juv	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab	
			Adult	Total	<70	70-91	92-114	>114	<165 mm		>164 mm					
COM	237	199	0	199	143	48	22	3	0	0	0	0	0	217	416	
COO	234	48	328	375	23	16	23	20	4	0	0	0	4	85	460	
COQ	236	12	0	12	12	1	0	0	0	0	0	0	0	13	25	
132A	235	6	6	11	10	1	0	0	0	0	0	0	0	11	22	
145B	253	43	0	43	50	0	0	0	0	0	0	0	0	50	93	
156A	245	76	54	130	63	13	8	9	1	0	0	0	1	94	224	
157A	252	405	18	423	402	32	4	12	0	0	0	0	0	450	873	
Pop Index		1,819,773	553,714	2,373,488	1,536,289	526,568	276,381	224,763	88,021	51,348	4,548	143,918	2,707,919	5,081,407		
PAVLOF BAY/VOLCANO																
228	294	16	2	18	10	0	1	2	0	2	1	3	16	34		
245	295	25	25	50	2	35	47	20	2	5	1	8	112	162		
PAB	282	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PAC	281	5	0	5	7	0	0	0	0	0	0	0	7	12		
PAE	283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PAF	280	24	0	24	36	1	0	0	0	0	0	0	37	61		
PAH	285	4	0	4	3	1	0	0	0	0	0	0	4	8		
PAI	284	2	0	2	1	0	0	0	0	0	0	0	1	3		
PAJ	279	2	0	2	0	0	0	0	0	0	0	0	0	2		
PAL	286	18	1	19	18	7	5	0	0	0	0	0	30	49		
PAM	287	3	0	3	12	3	0	0	0	0	0	0	15	18		
PAN	289	0	0	0	1	1	0	0	0	0	0	0	2	2		
PAP	288	2	0	2	2	4	1	1	1	0	0	1	9	11		
PAQ	278	8	0	8	7	0	0	0	0	0	0	0	7	15		
PAS	277	1	1	2	0	2	0	1	0	0	0	0	3	6		
PAT	272	2	9	11	2	0	0	0	0	0	0	0	2	13		
PAU	273	76	22	98	13	119	30	15	3	1	0	4	181	279		
PAV	274	15	115	130	5	8	3	6	2	0	0	2	24	154		
VOA	264	34	2	37	36	2	0	1	1	2	0	3	42	79		
VOB	265	33	261	294	39	4	13	11	3	4	0	7	74	368		
VOC	266	22	438	460	15	5	6	18	1	15	3	19	63	523		
VOD	267	48	32	80	34	12	13	5	2	0	1	3	67	147		
VOD	255	30	0	30	61	2	2	1	0	0	0	0	66	96		
VOE	268	12	2	14	4	2	0	0	0	0	0	0	6	20		
VOG	261	16	190	206	13	5	10	22	6	15	0	21	71	277		
VOH	271	120	490	610	86	23	23	19	4	6	0	10	161	771		
VOI	270	10	103	113	6	4	19	35	9	27	0	36	100	213		
VOJ	269	24	162	186	15	1	2	6	1	0	0	1	25	211		
VOL	254	50	0	50	54	0	0	0	0	0	0	0	54	104		
VON	260	22	39	61	20	27	47	20	3	0	0	3	117	178		
VOP	256	88	18	106	30	130	152	32	4	2	2	8	352	458		
VOQ	259	25	0	25	19	1	1	0	1	0	0	1	22	47		
PAOA	291	7	18	25	4	5	9	5	1	2	0	3	26	51		
PAOB	290	15	0	15	9	17	4	4	0	0	0	0	34	49		
PARA	292	29	74	103	14	12	10	6	1	0	0	1	43	146		
PARB	276	46	53	99	2	56	106	66	14	28	6	48	278	377		
PAWA	275	2	1	3	6	0	0	1	0	0	0	0	7	10		
VOFA	263	33	0	33	43	1	1	0	0	0	0	0	0	46	79	
VOFB	262	222	104	326	204	9	29	0	2	0	0	0	2	244	570	
VOMA	257	12	2	14	9	8	3	1	0	0	0	0	21	35		

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Appendix I. (page 3 of 3)

Station	Tow #	Females			No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165 mm	>164mm			
VOMB		182	1	183	220	11	3	2	0	0	0	0	236	419
Pop Index		1,138,250	2,110,361	3,248,611	823,545	574,445	631,345	345,196	62,129	125,646	18,957	206,732	2,581,264	5,829,876
BEAVER/BALBOA BAY/UNGA														
278	300	8	6	14	5	5	13	2	0	0	0	0	25	39
348	317	4	46	50	6	0	21	15	2	1	0	3	45	95
BAA	303	66	2	68	91	0	0	0	0	0	0	0	91	159
BAC	302	22	134	156	34	2	8	15	0	0	0	0	59	215
BAD	304	71	0	71	87	0	1	0	0	0	0	0	88	159
BAE	301	38	290	328	19	4	14	13	1	5	0	6	56	384
BAF	305	1	0	1	3	0	0	0	0	0	0	0	3	4
BVA	298	0	0	0	1	0	0	0	0	0	0	0	1	1
BVB	297	1	0	1	0	0	0	0	0	0	0	0	0	1
BVC	299	2	0	2	3	1	0	0	0	0	0	0	4	6
BVD	296	0	0	0	0	2	0	0	0	0	0	0	2	2
311B	306	66	0	66	67	3	3	0	3	0	0	0	76	141
311C	307	61	5	66	70	7	1	0	0	0	0	0	78	144
312A	310	4	0	4	1	0	0	0	0	0	0	0	1	5
329B	316	39	6	45	21	8	12	6	6	0	0	6	53	98
329C	309	82	12	94	86	2	6	2	0	0	0	0	96	190
Pop Index		373,873	479,216	853,088	384,768	40,079	155,649	89,422	16,441	6,615	0	23,057	692,974	1,546,062
STEPOVAK BAY														
387	320	38	3	41	45	0	2	0	0	0	0	0	47	88
388	325	45	22	67	55	1	2	3	1	0	0	1	62	129
389	319	22	0	22	18	0	1	0	1	0	0	1	20	42
409	326	32	11	43	35	1	3	1	0	2	0	2	42	85
STA	322	132	0	132	162	0	0	0	0	0	0	0	162	294
STB	323	106	0	106	113	0	0	0	0	0	0	0	113	219
STD	321	42	0	42	52	0	0	0	0	0	0	0	52	94
STE	324	53	0	53	53	0	0	0	0	0	0	0	53	106
368A	318	19	1	20	16	0	0	2	0	0	0	0	18	38
Pop Index		891,103	138,654	1,029,758	992,870	7,256	28,929	19,636	8,266	6,158	0	14,424	1,063,116	2,092,874
WEST NAGAI														
353	312	34	0	34	43	3	3	1	0	0	0	0	50	84
371	315	4	0	4	3	0	0	0	0	0	0	0	3	8
393	314	5	0	5	3	1	0	1	0	0	0	0	5	10
332B	311	13	5	18	8	0	2	0	0	0	0	0	10	28
373B	313	47	30	77	34	4	3	0	0	1	0	1	42	119
Pop Index		223,997	36,745	260,741	228,844	17,172	17,328	5,913	0	908	0	908	270,166	530,907
SOUTH PENINSULA														
GRAND TOTAL		7,129,460	4,468,448	11,597,907	5,881,949	1,909,951	1,714,131	905,676	200,492	216,218	24,994	441,703	10,853,409	22,451,318

Appendix J. Numbers of Tanner crab per 1.85 km (1 nautical mile) in 1990 in the Chignik Management District with population index by area.

Station	Tow #	Juv	Females		No. Sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
			Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
IVANOF BAY														
4000	327	2	19	21	2	6	71	172	79	0	0	79	330	351
4007	328	84	0	84	117	1	0	0	0	0	0	0	118	202
4008	329	85	2	87	96	0	1	1	0	0	0	0	98	185
4009	330	68	0	68	66	1	2	2	0	0	0	0	71	139
4024	332	6	0	6	8	0	0	0	0	0	0	0	8	14
4036	333	14	0	14	14	0	0	1	0	0	0	0	15	29
4915	331	27	0	27	42	0	0	0	0	0	0	0	42	69
Pop Index		883,810	32,971	916,782	1,040,228	14,699	108,905	250,741	108,961	0	0	108,961	1,523,534	2,440,316
MITROFANIA														
4035	334	9	0	9	13	1	0	0	0	0	0	0	14	23
4048	339	13	11	24	10	7	6	11	7	0	1	8	42	66
4049	335	41	0	41	34	0	0	0	0	0	0	0	34	75
4063	338	42	4	46	18	47	53	56	19	2	1	22	196	242
4064	337	5	9	14	9	6	14	26	9	7	1	17	72	86
4065	336	3	0	3	5	0	0	0	0	0	0	0	5	8
Pop Index		280,518	49,611	330,129	226,831	147,864	178,760	224,330	81,523	22,790	6,582	110,895	888,680	1,218,809
CHIGNIK BAY														
4256	350	36	0	36	30	0	0	0	0	0	0	0	30	66
4260	351	216	0	216	188	14	2	0	2	0	0	2	206	422
4264	342	35	2	37	27	6	50	113	8	0	0	8	204	241
4265	340	6	0	6	4	0	0	0	0	0	0	0	4	10
4266	349	490	10	500	339	9	0	2	0	0	0	0	350	850
4267	348	115	47	162	119	1	3	3	3	0	0	3	129	291
4270	344	28	22	50	27	2	6	90	29	9	0	38	163	213
4271	343	108	308	416	87	3	4	65	1	9	0	10	169	585
4272	352	0	10	10	2	0	1	0	0	0	0	0	3	13
4274	347	250	50	300	189	57	19	16	2	0	0	2	283	583
4277	353	124	53	177	124	1	2	18	0	2	0	2	147	324
4278	346	61	45	106	40	2	5	26	3	15	0	18	91	197
4282	354	92	28	120	82	13	8	6	1	1	0	2	111	231
4286	356	113	1	114	114	3	1	7	3	0	0	3	129	243
4287	355	102	11	113	60	2	8	7	1	0	0	1	78	191
4312	345	9	23	31	9	6	34	169	40	51	1	93	310	341
4964	341	4	0	4	4	0	0	0	0	0	0	0	4	8
Pop Index		1,650,408	423,973	2,074,381	1,330,223	112,046	133,699	445,000	83,477	77,931	1,387	162,794	2,183,762	4,258,144
KUJULIK BAY														
4290	357	6	0	6	6	0	0	0	0	0	0	0	6	13
4296	358	11	0	11	17	0	1	0	0	0	0	0	18	29
4298	359	111	0	111	123	0	3	2	0	0	0	0	128	239
4301	360	14	2	16	23	0	0	0	0	0	0	0	23	39
4302	362	113	8	121	107	1	1	1	0	0	0	0	110	231
4304	361	21	3	24	35	0	0	0	0	0	0	0	35	59
4308	363	120	88	208	87	1	5	6	2	0	0	2	101	309
RFA														
Pop Index		394,255	122,744	517,000	380,715	2,193	10,486	10,206	2,525	0	0	2,525	406,125	923,125
GRAND TOTAL		3,208,993	629,299	3,838,292	2,977,997	276,802	431,850	930,278	276,486	100,720	7,968	385,174	5,002,102	8,840,394

Appendix K. Numbers of king crab per 1.85 km (1 nautical mile) in 1990 in the Alaska Peninsula Management Area with population index by area.

Station	Tow #	Juv	Females	Total	Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
			Adult		IV	III	II	I					
SANAK ISLAND													
113	212	0	0	0	0	0	0	0	0	0	0	0	0
125	213	0	0	0	0	0	0	0	0	0	0	0	0
126	214	0	0	0	0	0	0	0	0	0	0	0	0
137	216	0	0	0	0	0	0	0	0	0	0	0	0
138	215	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		0	0	0	0	0	0	0	0	0	0	0	0
IVANOF BAY													
4000	327	0	0	0	0	0	0	0	0	0	0	0	0
4007	328	0	0	0	0	0	0	0	0	0	0	0	0
4008	329	0	0	0	0	0	0	0	0	0	0	0	0
4009	330	0	0	0	0	0	0	0	0	0	0	0	0
4024	332	0	0	0	0	0	0	0	0	0	0	0	0
4036	333	0	0	0	0	0	0	0	0	0	0	0	0
4915	331	1	1	2	0	1	0	0	0	0	0	1	3
Pop Est		987	987	1,975	0	987	0	0	0	0	0	987	2,962
MORZHVOI BAY													
87A	208	0	0	0	0	0	0	0	0	0	0	0	0
87B	222	0	0	0	0	0	0	0	0	0	0	0	0
87C	210	0	0	0	0	0	0	0	0	0	0	0	0
87D	211	0	0	0	0	0	0	0	0	0	0	0	0
98C	221	0	0	0	0	0	0	0	0	0	0	0	0
MOB	230	0	0	0	0	0	0	0	0	0	0	0	0
MOC	229	2	0	2	2	0	0	0	0	0	0	2	4
MOD	231	4	2	6	0	4	0	3	0	0	0	7	13
MOF	228	0	0	0	0	0	0	0	0	0	0	0	0
MOG	232	0	0	0	0	0	0	0	0	0	0	0	0
MOH	227	0	0	0	0	0	0	0	0	0	0	0	0
MOI	233	0	0	0	0	0	0	0	0	0	0	0	0
MOJ	226	0	0	0	0	0	0	0	0	0	0	0	0
MOK	225	0	0	0	0	0	0	0	0	0	0	0	0
MOL	224	0	0	0	0	0	0	0	0	0	0	0	0
MOM	204	0	0	0	0	0	0	0	0	0	0	0	0
MON	205	0	0	0	0	0	0	0	0	0	0	0	0
MOO	220	0	0	0	0	0	0	0	0	0	0	0	0
MOP	223	0	0	0	0	0	0	0	0	0	0	0	0
MOR	219	0	0	0	0	0	0	0	0	0	0	0	0
MOS	206	0	0	0	0	0	0	0	0	0	0	0	0
MOU	217	0	0	0	0	0	0	0	0	0	0	0	0
MOV	218	0	0	0	0	0	0	0	0	0	0	0	0
MOW	207	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		5,225	1,899	7,124	1,428	3,798	0	2,848	0	0	0	8,073	15,198
MITROFANIA													
4035	334	0	0	0	0	0	0	0	0	0	0	0	0
4048	339	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix K. (page 2 of 5)

Station	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
4049	335	0	0	0	0	0	0	0	0	0	0	0	0
4063	338	0	0	0	0	0	1	0	0	0	0	1	1
4064	337	1	0	1	0	0	0	0	0	0	0	0	1
4065	336	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		3,544	0	3,544	0	0	2,532	0	0	0	0	2,532	6,076
COLD BAY/BELKOFSKI													
BEA	250	0	0	0	0	0	0	0	0	0	0	0	0
BEB	249	1	0	1	0	0	0	0	0	1	1	1	2
BEC	247	0	0	0	0	0	0	0	0	0	0	0	0
BED	248	0	0	0	0	0	0	0	0	0	0	0	0
BEE	251	0	0	0	0	0	0	0	0	0	0	0	0
BEF	246	0	0	0	0	0	0	0	0	0	0	0	0
BEG	244	0	0	0	0	0	0	0	0	0	0	0	0
COA	240	0	0	0	0	0	0	0	0	0	0	0	0
COE	241	2	0	2	2	1	1	0	0	0	0	4	6
COF	239	1	0	1	0	0	0	0	0	0	0	0	0
COG	243	0	0	0	0	0	0	0	0	0	0	0	0
COH	242	1	0	1	0	0	0	0	0	0	0	0	1
COJ	238	0	0	0	0	0	0	0	0	0	0	0	0
COM	237	0	0	0	0	0	0	0	0	1	1	2	2
COO	234	0	0	0	0	0	0	0	0	0	0	0	0
COQ	236	0	0	0	0	0	0	0	0	0	0	0	0
132A	235	0	0	0	0	0	0	0	0	0	0	0	0
145B	253	0	0	0	0	0	0	0	0	0	0	0	0
156A	245	0	0	0	0	0	0	0	0	0	0	0	0
157A	252	1	0	1	0	0	0	0	0	0	0	0	1
Pop Est		4,444	0	4,444	1,558	779	779	0	817	1,177	1,994	5,111	9,555
CHIGNIK BAY													
4256	350	0	0	0	0	0	0	0	0	0	0	0	0
4260	351	0	0	0	0	0	0	0	0	0	0	0	0
4264	342	0	0	0	0	0	0	0	0	0	0	0	0
4265	340	0	0	0	0	0	0	0	0	0	0	0	0
4266	349	0	0	0	0	0	0	0	0	0	0	0	0
4267	348	0	0	0	0	0	0	0	0	0	0	0	0
4270	344	0	0	0	0	0	0	0	0	0	0	0	0
4271	343	0	0	0	0	0	0	0	0	0	0	0	0
4272	352	0	0	0	0	0	0	0	0	0	0	0	0
4274	347	0	0	0	0	0	0	0	0	0	0	0	0
4277	353	0	0	0	0	0	0	0	0	0	0	0	0
4278	346	0	0	0	0	0	0	0	0	0	0	0	0
4282	354	0	0	0	0	0	0	0	0	0	0	0	0
4286	356	0	0	0	0	0	0	0	0	0	0	0	0
4287	355	0	0	0	0	0	0	0	0	0	0	0	0

-Continued-

Appendix K. (page 3 of 5)

Sta tion	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
4312	345	0	0	0	0	0	0	0	0	0	0	0	0
4964	341	1	0	1	0	0	0	0	0	0	0	0	1
Pop Est		4,142	0	4,142	0	0	0	0	0	0	0	0	4,142
PAVLOF BAY/VOLCANO													
228	294	0	0	0	0	0	0	0	0	0	0	0	0
245	295	0	0	0	0	0	0	0	0	0	0	0	0
PAB	282	0	0	0	0	0	0	0	0	0	0	0	0
PAC	281	0	0	0	0	0	0	0	0	0	0	0	0
PAE	283	0	0	0	0	0	0	0	0	0	0	0	1
PAF	280	0	0	0	1	0	0	0	0	0	0	0	0
PAH	285	0	0	0	0	0	0	0	0	0	0	0	0
PAI	284	0	0	0	0	0	0	0	0	0	0	0	0
PAJ	279	0	0	0	0	0	0	0	0	0	0	0	0
PAL	286	0	0	0	0	0	0	0	0	0	0	0	0
PAM	287	0	0	0	0	0	0	0	0	0	0	0	0
PAN	289	0	0	0	0	0	0	0	0	0	0	0	0
PAP	288	0	0	0	0	0	0	0	0	0	0	0	0
PAQ	278	0	0	0	0	0	0	0	0	0	0	0	1
PAS	277	1	0	1	0	0	0	0	0	0	0	0	0
PAT	272	1	0	1	0	0	0	0	0	0	0	0	0
PAU	273	0	0	0	0	0	0	0	0	0	0	0	1
PAV	274	1	0	1	0	0	0	0	0	0	1	1	1
VOA	264	0	0	0	0	0	0	0	0	0	0	0	0
VOB	265	0	0	0	0	0	0	0	0	0	0	0	0
VOC	266	0	0	0	0	0	0	0	0	0	0	0	0
VOD	267	0	0	0	0	0	0	0	0	0	0	0	0
VOD	255	0	0	0	0	0	0	0	0	0	0	0	0
VOE	268	0	0	0	0	0	0	0	0	0	0	0	0
VOG	261	0	0	0	0	0	0	0	0	0	0	0	0
VOH	271	0	0	0	0	0	0	0	0	0	0	0	0
VOI	270	0	0	0	0	0	0	0	0	0	0	0	0
VOJ	269	0	0	0	0	0	0	0	0	0	0	0	0
VOL	254	0	0	0	0	0	0	0	0	0	0	0	0
VON	260	0	0	0	0	0	0	0	0	0	0	0	0
VOP	256	0	0	0	0	0	0	0	0	0	0	0	0
VOQ	259	0	0	0	0	0	0	0	0	0	0	0	0
PAOA	291	0	0	0	0	0	0	0	0	0	0	0	0
PAOB	290	0	0	0	0	0	0	0	0	0	0	0	0
PARA	292	0	0	0	0	0	0	0	0	0	0	0	0
PARB	276	0	0	0	0	0	0	0	0	0	0	0	0
PAWA	275	0	0	0	0	0	0	0	0	0	0	0	0
VOFA	263	0	0	0	0	0	0	0	0	0	0	0	0
VOFB	262	0	0	0	0	0	0	0	0	0	0	0	0
VOMA	257	0	0	0	0	0	0	0	0	0	0	0	0
VOMB	258	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		2,686	0	2,686	662	0	0	0	0	1,055	1,055	1,717	4,404

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Appendix K. (page 4 of 5)

Station	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
KUJULIK BAY													
4290	357	0	0	0	0	0	0	0	0	0	0	0	0
4296	358	0	0	0	0	0	0	0	0	0	0	0	0
4298	359	0	0	0	0	0	0	0	0	0	0	0	0
4301	360	0	0	0	0	0	0	0	0	0	0	0	0
4302	362	0	0	0	0	0	0	0	0	0	0	0	0
4304	361	0	0	0	0	0	0	0	0	0	0	0	0
4308	363	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		0	0	0	0	0	0	0	0	0	0	0	0
BEAVER/BALBOA BAY/UNGA													
278	300	0	0	0	0	0	0	0	0	0	0	0	0
348	317	0	0	0	0	0	0	0	0	0	0	0	0
BAA	303	0	0	0	0	0	0	0	0	0	0	0	0
BAC	302	0	0	0	0	0	0	0	0	0	0	0	0
BAD	304	0	0	0	0	0	0	0	0	0	0	0	0
BAE	301	0	0	0	0	0	0	0	0	0	0	0	0
BAF	305	0	0	0	0	0	0	0	0	0	0	0	0
BVA	298	0	0	0	0	0	0	0	0	0	0	0	0
BVB	297	0	0	0	0	0	0	0	0	0	0	0	0
BVC	299	0	0	0	0	0	0	0	0	0	0	0	0
BVD	296	0	0	0	0	0	0	0	0	0	0	0	0
311B	306	0	0	0	0	0	0	0	0	0	0	0	0
311C	307	0	0	0	0	0	0	0	0	0	0	0	0
312A	310	0	0	0	0	0	0	0	0	0	0	0	0
329B	316	0	0	0	0	0	0	0	0	0	0	0	0
329C	309	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		0	0	0	0	0	0	0	0	0	0	0	0
STEPOVAK BAY													
387	320	0	0	0	0	0	0	0	0	0	0	0	0
388	325	0	0	0	0	0	0	0	0	0	0	0	0
389	319	0	0	0	0	0	0	0	0	0	0	0	0
409	326	0	0	0	0	0	0	0	0	0	0	0	0
STA	322	0	0	0	0	0	0	0	0	0	0	0	0
STB	323	0	0	0	0	0	0	0	0	0	0	0	0
STD	321	0	0	0	0	0	0	0	0	0	0	0	0
STE	324	0	0	0	0	0	0	0	0	0	0	0	0
368A	318	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		0	0	0	0	0	0	0	0	0	0	0	0
WEST NAGAI													
353	312	0	0	0	0	0	0	0	0	0	0	0	0
371	315	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix K. (page 5 of 5)

Sta tion	Tow #	Females			Prerecruit Males				Recruit	Post recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
393	314	0	0	0	0	0	0	0	0	0	0	0	0
332B	311	0	0	0	0	0	0	0	0	0	0	0	0
373B	313	0	0	0	0	0	0	0	0	0	0	0	0
Pop Est		0	0	0	0	0	0	0	0	0	0	0	0
Grand Total		21,029	2,886	23,915	3,649	5,564	3,311	2,848	817	2,232	3,049	18,421	42,336

Appendix L.1. Halibut lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP													TOTAL
	21	22	23	24	25	26	27	61	62	63	64			
12	0	0	0	0	0	0	0	0	0	0	1	1		1
13	0	0	0	0	0	0	0	0	0	0	1	1		1
15	0	0	0	0	0	0	0	0	0	0	2	2		2
18	0	0	0	0	0	0	0	0	0	0	1	1		1
22	0	2	0	0	0	0	0	0	0	0	3	3		5
23	0	0	0	1	0	0	0	0	0	0	1	1		2
24	0	0	0	0	0	0	0	0	0	0	1	1		1
25	0	2	1	0	0	0	0	0	0	0	0	0		3
26	0	0	0	0	0	0	0	0	0	0	1	1		1
27	0	0	0	0	0	0	0	0	0	0	2	2		2
28	0	0	0	0	0	0	0	0	0	0	6	6		6
29	0	2	0	2	0	0	0	0	0	0	0	0		4
30	0	5	0	3	0	0	0	0	0	0	0	0		8
31	0	3	2	4	1	0	0	0	0	0	0	0		10
32	0	3	0	2	0	0	0	0	0	0	0	0		5
33	0	4	0	1	1	0	0	0	0	0	0	1		7
34	0	1	0	2	3	0	0	0	0	0	0	2		8
35	0	2	2	8	1	0	0	0	0	0	0	1		14
36	0	8	2	9	3	0	0	0	0	0	0	1		23
37	0	1	1	12	7	0	0	0	0	0	0	3		24
38	0	5	1	15	4	0	0	0	0	0	0	1		26
39	0	6	1	24	2	0	0	0	0	0	0	3		36
40	0	3	1	10	3	0	0	0	0	0	0	3		20
41	0	5	2	10	0	0	0	0	0	0	0	0		17
42	0	9	0	6	2	0	0	0	0	0	0	3		20
43	0	6	1	3	2	0	0	0	0	0	1	2		15
44	0	7	1	3	2	0	0	0	0	0	0	0		13
45	0	3	2	3	1	0	0	0	0	0	1	2		13
46	0	4	1	6	4	0	0	0	0	0	1	0		17
47	0	5	0	7	0	1	0	0	0	0	0	0		13
48	0	2	4	5	2	0	1	0	0	0	0	0		14
49	0	2	3	4	0	0	0	0	0	0	0	0		10
50	0	3	1	1	3	0	0	0	0	0	0	0		8
51	0	0	0	8	1	0	0	0	0	1	0	0		10
52	0	1	0	4	0	0	0	0	1	0	0	2		8
53	0	3	0	3	0	0	0	0	1	0	1	2		10
54	0	2	0	3	0	0	0	0	0	1	0	2		8
55	0	4	1	4	1	0	0	0	1	1	3	3		18
56	0	3	2	9	0	0	0	0	0	0	0	2		16
57	0	3	1	2	1	0	0	0	0	0	3	0		10
58	0	0	0	2	0	0	0	0	0	0	1	1		3
59	0	2	0	4	0	1	0	0	0	1	2	1		11
60	0	0	1	0	0	0	0	1	0	1	1	1		4
61	0	2	1	4	1	1	1	1	3	0	1	1		15
62	0	4	1	2	1	0	0	0	0	0	0	0		8
63	0	1	0	3	0	0	0	1	1	0	0	2		8
64	0	1	1	2	0	0	0	0	0	0	0	1		5
65	0	0	0	2	0	0	0	1	0	2	3	0		9
66	0	1	0	3	0	2	0	0	0	0	2	0		8
67	0	3	2	5	1	0	0	0	0	0	0	1		12

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Appendix L.1. (page 2 of 3)

LENGTH (CM)	AREA GROUP													TOTAL
	21	22	23	24	25	26	27	61	62	63	64			
68	0	0	1	0	1	0	0	0	0	1	1	1	4	
69	0	2	0	4	0	0	0	1	2	5	0	14		
70	0	1	1	2	0	1	0	0	2	1	1	9		
71	1	3	0	11	1	0	0	1	1	0	0	18		
72	0	1	1	2	0	0	0	0	4	2	1	11		
73	0	3	2	1	0	0	0	0	2	0	1	9		
74	0	4	0	3	0	1	0	0	1	0	0	9		
75	0	4	0	3	1	0	1	0	1	2	0	12		
76	0	1	1	4	0	0	0	0	5	0	1	12		
77	0	2	1	1	0	0	0	1	0	1	0	6		
78	0	3	1	3	1	1	0	0	0	1	0	10		
79	0	3	0	0	0	0	0	0	0	1	2	6		
80	0	1	2	3	0	1	1	0	3	2	2	13		
81	0	4	1	2	0	0	0	0	2	0	0	9		
82	0	5	0	3	0	0	0	1	2	0	1	12		
83	0	0	2	1	1	0	0	0	0	2	0	8		
84	0	2	2	7	1	0	0	2	2	0	0	16		
85	0	1	1	4	0	1	3	0	0	1	0	11		
86	0	2	3	4	0	0	0	0	1	2	0	12		
87	0	1	1	0	2	1	0	0	1	0	2	8		
88	0	3	0	4	0	0	0	0	0	0	0	7		
89	0	1	1	3	0	0	0	0	3	1	0	9		
90	0	0	0	0	1	0	0	1	1	1	0	4		
91	0	1	1	5	0	1	1	0	0	1	0	10		
92	1	3	1	3	0	0	0	0	1	0	1	10		
93	1	1	1	0	1	0	0	0	0	0	1	5		
94	0	2	0	1	1	0	0	2	0	0	1	8		
95	2	6	0	1	0	0	0	1	2	0	0	12		
96	0	2	0	1	0	0	0	0	1	0	0	4		
97	0	2	0	2	3	0	0	0	0	0	0	7		
98	0	2	0	0	0	1	1	0	0	1	0	5		
99	0	0	1	1	1	0	0	0	1	0	0	3		
100	1	2	2	3	1	1	1	0	0	2	2	16		
101	1	0	0	1	0	0	0	0	0	0	0	2		
102	0	0	0	1	1	0	1	0	0	0	0	3		
103	0	0	0	1	0	0	1	0	0	0	0	4		
104	0	1	0	0	0	1	0	1	0	1	0	3		
105	0	0	0	0	1	1	0	0	1	1	0	4		
106	0	0	0	0	2	0	0	0	0	1	0	3		
107	0	1	0	3	0	0	1	0	1	0	0	7		
108	0	3	1	4	0	0	0	0	0	0	0	8		
109	0	1	0	0	0	0	0	0	0	0	0	1		
110	0	2	1	2	0	0	0	0	0	0	0	5		
112	0	0	0	0	1	0	0	0	0	0	0	2		
113	0	1	0	0	0	0	0	0	0	0	0	1		
114	0	0	0	0	1	1	0	0	0	0	0	2		
115	0	0	0	0	1	0	1	0	0	0	0	2		
116	0	0	0	0	1	1	0	0	0	1	0	4		
117	0	1	0	1	0	0	0	0	0	0	0	2		
119	0	0	1	1	1	0	0	0	1	0	1	4		
120	0	0	0	0	2	1	0	1	0	0	0	4		

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Appendix L.1. (page 3 of 3)

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
121	0	1	0	1	1	0	0	0	0	0	0	0	3
122	0	1	0	0	0	0	0	0	0	0	0	0	1
123	0	1	1	0	0	0	0	0	0	1	0	0	3
124	0	0	0	1	0	0	0	0	0	0	0	0	1
125	0	0	1	1	0	0	1	0	0	0	0	0	3
126	0	0	0	0	0	0	0	0	1	0	0	0	1
127	0	0	0	1	0	0	0	0	0	1	0	0	1
128	0	0	0	1	0	1	0	0	0	0	0	0	2
129	0	0	0	1	0	0	0	0	0	0	0	0	1
131	0	0	1	1	0	0	0	0	0	0	0	0	2
133	0	2	0	0	0	0	0	0	0	0	0	0	2
134	0	0	0	1	0	0	0	0	0	0	0	1	2
135	0	0	0	0	1	0	0	0	0	0	0	0	1
136	0	1	0	0	0	0	0	0	0	0	0	0	1
139	0	0	0	1	0	1	0	0	0	0	0	0	2
142	0	0	0	0	1	0	0	0	0	0	0	0	1
143	0	0	0	0	0	1	0	0	0	0	0	0	1
151	0	0	1	0	1	0	0	0	0	0	0	0	2
155	0	0	1	0	0	0	0	0	0	0	0	0	1
157	0	0	0	1	0	0	0	0	0	0	0	0	1
163	0	0	1	0	0	0	0	0	0	0	0	0	1
169	0	0	0	1	0	0	0	0	0	0	0	0	1
172	0	0	0	0	1	0	0	0	0	0	0	0	1
177	0	0	0	1	0	0	0	0	0	0	0	0	1
	7	207	72	317	74	21	20	17	51	47	86	919	

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 21 SANAK ISLAND | 27 WEST NAGAI |
| 22 MORZHOOVOI BAY | 61 IVANOF BAY |
| 23 COLD BAY/BELKOFSKI | 62 MITROFANIA |
| 24 PAVLOF BAY/VOLCANO | 63 CHIGNIK BAY |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 64 KUJULIK BAY |
| 26 STEPOVAK BAY | |

Appendix L.2. Flathead sole lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
6	0	0	0	0	0	0	1	0	0	0	0	0	1
7	0	0	3	0	1	2	4	8	0	15	1	1	34
8	0	0	3	1	11	7	1	3	0	12	10	48	
9	0	0	0	2	10	1	0	1	0	5	13	32	
10	0	1	1	2	4	0	0	3	0	7	14	32	
11	0	0	1	5	2	4	4	4	0	10	7	37	
12	1	0	4	1	5	2	8	3	0	13	11	48	
13	3	2	9	4	4	1	6	1	0	5	5	40	
14	0	2	14	2	4	3	4	4	1	5	12	51	
15	1	1	23	10	2	2	2	4	0	15	8	68	
16	1	1	14	9	1	3	0	2	1	10	11	53	
17	2	1	23	6	1	1	1	10	1	13	9	68	
18	3	1	41	8	2	3	0	5	0	9	8	80	
19	4	1	36	7	4	6	0	3	1	4	9	75	
20	4	3	32	5	3	5	1	7	1	5	2	68	
21	6	7	20	8	4	5	0	5	1	3	3	62	
22	6	8	21	10	4	7	1	6	1	5	2	71	
23	3	8	17	11	3	10	0	6	2	8	3	71	
24	6	20	16	11	10	8	0	8	1	8	2	90	
25	6	12	19	16	11	12	1	12	4	12	3	108	
26	17	21	29	12	14	4	4	12	8	20	4	145	
27	21	23	43	28	13	14	9	18	8	19	4	200	
28	19	27	56	36	32	12	3	18	13	32	9	257	
29	12	28	42	54	44	21	8	25	25	37	6	302	
30	15	30	36	45	51	42	11	28	18	68	18	362	
31	13	37	41	86	51	26	9	28	32	75	17	415	
32	20	31	25	68	40	33	16	23	27	63	26	372	
33	21	36	16	94	23	28	14	28	21	70	35	386	
34	16	31	21	69	26	25	10	24	19	58	30	329	
35	9	25	21	38	26	24	6	12	16	50	18	245	
36	4	23	11	24	16	21	9	13	21	51	25	218	
37	5	18	8	28	17	10	8	9	20	45	29	197	
38	0	17	9	28	9	14	1	8	11	45	23	165	
39	2	18	10	32	5	11	2	4	9	36	18	147	
40	4	7	6	31	4	5	1	6	11	25	20	120	
41	0	9	2	25	4	4	0	3	3	15	6	71	
42	0	4	3	20	1	2	1	3	1	15	12	62	
43	0	5	3	8	1	1	0	2	1	9	4	34	
44	0	2	3	10	1	1	1	0	1	3	3	25	
45	0	0	0	8	0	0	0	0	0	1	0	9	
46	0	2	0	6	0	0	0	1	0	1	0	10	
47	0	0	0	5	1	0	0	0	0	0	0	6	
48	0	1	0	3	0	0	0	0	0	0	0	4	
49	0	0	0	1	0	0	0	0	0	0	0	1	
50	0	0	0	1	0	0	0	0	0	0	0	1	
51	0	0	0	2	0	0	0	0	0	0	0	2	
	224	463	682	880	465	380	147	360	279	902	440	5222	

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 21 SANAK ISLAND | 27 WEST NAGAI |
| 22 MORZHVOI BAY | 61 IVANOF BAY |
| 23 COLD BAY/BELKOFSKI | 62 MITROFANIA |
| 24 PAVLOF BAY/VOLCANO | 63 CHIGNIK BAY |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 64 KUJULIK BAY |
| 26 STEPOVAK BAY | |

Appendix L.3. Rock sole lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP												TOTAL
	22	23	24	25	26	27	61	62	63	64			
7	0	0	0	0	0	0	0	0	0	5			5
8	0	1	0	0	0	0	0	0	0	35			36
9	0	0	0	1	0	0	0	0	0	1			2
10	0	0	0	0	0	0	0	0	0	1			1
11	3	0	0	0	0	0	0	0	0	1			4
12	1	0	1	0	0	0	0	0	0	4			6
13	1	0	0	1	0	0	0	0	0	7			9
14	3	0	0	0	0	0	0	0	0	10			13
15	1	0	0	0	0	0	0	0	0	4			5
16	2	1	0	0	0	0	0	0	0	4			7
17	4	0	0	0	0	0	0	0	0	9			13
18	3	0	0	1	0	0	0	0	0	10			14
19	6	0	0	0	0	0	0	0	0	9			15
20	6	0	1	2	0	0	0	0	0	2			11
21	9	1	5	2	0	0	0	0	0	1			18
22	14	0	2	2	0	0	0	0	0	2			20
23	18	4	3	6	0	1	0	0	0	3			35
24	23	5	3	8	0	0	0	0	0	3			42
25	27	7	6	9	0	1	0	0	0	2			52
26	25	5	8	9	0	0	0	0	0	0			47
27	18	4	15	19	0	1	0	0	0	1			58
28	24	5	12	16	0	3	0	0	0	0			60
29	22	12	11	14	0	2	1	2	0	2			66
30	28	10	26	16	0	1	0	1	0	0			82
31	30	12	20	14	0	3	0	2	1	0			82
32	15	16	20	9	0	2	0	2	0	0			64
33	20	8	18	6	0	2	0	1	5	0			60
34	18	7	13	7	0	1	1	1	0	1			49
35	9	7	14	5	0	1	1	3	1	2			43
36	11	13	12	10	0	0	1	3	1	1			52
37	11	14	14	3	0	2	1	3	1	0			49
38	8	4	13	1	0	0	0	1	1	2			30
39	10	3	11	1	1	1	0	0	2	0			29
40	8	3	8	3	0	2	0	0	0	0			24
41	4	4	4	1	0	0	0	0	0	0			13
42	2	3	2	0	0	0	0	0	0	1			8
43	1	2	5	0	0	0	0	0	0	0			8
44	3	0	2	0	0	0	0	0	0	0			5
45	1	0	1	1	0	0	0	0	0	0			3
46	0	1	0	0	0	0	0	0	0	0			1
47	1	0	0	0	0	0	0	0	0	0			1
48	2	0	0	0	0	0	0	0	0	0			2
	392	152	250	167	1	23	5	19	13	122	1144		

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 22 MORZHOOVOI BAY | 27 WEST NAGAI |
| 23 COLD BAY/BELKOFSKI | 61 IVANOF BAY |
| 24 PAVLOF BAY/VOLCANO | 62 MITROFANIA |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 63 CHIGNIK BAY |
| 26 STEPOVAK BAY | 64 KUJULIK BAY |

Appendix L.4. Yellowfin sole lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP											TOTAL
	22	23	24	25	26	27	61	62	63	64		
6	0	0	1	0	0	0	0	0	0	0	0	1
10	0	0	3	0	0	0	0	0	0	0	0	3
11	0	2	2	0	0	0	0	0	0	0	0	4
12	0	1	3	0	0	0	0	0	0	1	0	5
13	0	4	1	0	0	0	0	0	0	2	0	7
14	1	6	2	0	0	0	0	0	0	0	0	9
15	0	5	4	0	0	0	0	0	0	1	0	10
16	1	6	5	0	0	0	0	0	0	0	0	12
17	2	1	4	0	0	0	0	0	0	0	0	7
18	2	4	3	0	0	0	0	0	0	0	0	9
19	0	9	11	3	0	0	0	0	0	1	0	24
20	1	5	14	0	0	0	0	0	0	0	0	20
21	3	9	18	0	0	0	0	0	0	0	0	30
22	6	18	21	3	0	0	0	0	0	1	0	49
23	4	22	12	4	0	0	0	0	0	1	0	43
24	8	32	24	3	0	1	0	0	0	0	0	68
25	14	46	39	11	0	3	0	0	0	1	0	114
26	10	60	53	11	0	2	0	0	0	2	0	138
27	21	64	72	26	0	4	1	0	0	0	1	189
28	13	58	115	36	0	2	0	0	0	2	0	228
29	35	79	195	41	0	3	6	0	0	3	0	365
30	30	84	214	59	0	2	3	0	0	5	0	400
31	42	97	223	50	0	4	12	0	0	2	0	434
32	41	79	218	49	0	6	13	0	0	7	0	415
33	47	99	208	33	1	6	13	0	0	4	0	413
34	45	83	154	31	2	5	13	0	0	2	0	336
35	39	72	105	29	2	5	16	0	0	4	0	275
36	40	57	82	17	2	3	5	0	0	3	0	213
37	38	45	46	3	4	1	6	0	0	4	0	150
38	28	19	15	3	3	0	5	0	0	6	0	80
39	20	10	7	0	3	0	5	0	0	2	0	47
40	8	3	6	2	2	0	3	1	0	0	0	25
41	7	2	1	1	3	0	1	1	0	0	0	16
42	1	0	1	0	0	0	0	1	0	2	0	6
43	0	0	0	2	0	0	1	1	0	0	0	4
44	0	0	1	0	0	0	0	0	0	0	0	1
45	0	0	0	0	0	0	1	0	0	0	0	1
	507	1081	1883	417	22	47	104	4	49	37	4151	

List of Area Groups:

22 MORZHOOVI BAY
23 COLD BAY/BELKOFSKI
24 PAVLOF BAY/VOLCANO
25 BEAVER/BALBOA BAY/UNGA STRAIT
26 STEPOVAK BAY

27 WEST NAGAI
61 IVANOF BAY
62 MITROFANIA
63 CHIGNIK BAY
64 KUJULIK BAY

Appendix L.5. Arrowtooth flounder lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
7	0	0	0	0	0	0	0	0	0	0	0	1	1
11	0	0	0	0	0	0	0	1	0	0	0	0	1
12	0	0	0	0	3	0	0	3	1	0	0	0	7
13	0	0	0	0	2	0	1	6	0	0	0	0	9
14	0	0	3	0	12	0	0	5	0	0	0	3	23
15	0	0	2	0	7	0	0	1	0	0	0	5	15
16	0	0	2	1	0	0	0	1	1	1	1	1	7
17	0	0	1	0	9	1	0	5	0	1	2	1	19
18	0	1	2	1	7	0	0	7	1	0	2	2	21
19	0	1	0	0	4	0	0	11	5	0	1	1	22
20	0	2	3	1	10	3	2	11	4	0	0	0	36
21	1	3	5	3	10	1	1	4	1	6	1	1	36
22	0	8	12	9	5	2	3	6	0	1	1	1	47
23	0	10	16	10	9	3	8	7	4	6	2	2	75
24	2	5	9	18	14	1	4	6	4	7	1	1	71
25	1	7	11	9	19	6	3	6	3	11	3	3	79
26	1	9	4	1	23	7	4	13	4	16	2	2	84
27	2	3	3	3	12	2	3	6	1	11	2	2	48
28	2	8	5	3	21	1	3	4	2	15	2	2	66
29	1	18	6	12	21	2	5	2	2	10	4	4	83
30	4	8	13	18	19	1	2	2	3	15	5	5	90
31	0	7	9	18	24	3	4	3	3	11	1	1	83
32	2	8	7	28	22	7	1	10	6	11	7	109	
33	2	8	6	22	11	3	3	4	4	19	8	8	90
34	0	9	5	10	9	6	1	5	4	20	8	8	77
35	3	8	4	9	21	5	2	3	2	22	11	11	90
36	2	13	2	6	12	3	1	8	4	11	4	6	66
37	1	13	1	12	8	5	1	5	3	15	12	12	76
38	1	13	1	11	7	4	1	6	3	22	3	3	72
39	3	10	0	10	11	5	0	6	5	9	5	5	64
40	2	13	0	6	9	5	2	5	4	15	7	7	68
41	1	6	1	6	10	7	0	6	2	8	6	53	
42	2	14	0	10	7	5	1	8	4	9	8	8	68
43	1	12	0	6	5	0	0	4	3	13	4	4	48
44	0	11	1	3	7	5	0	3	0	14	6	6	50
45	1	5	0	4	2	6	3	3	2	10	3	3	39
46	0	8	0	6	3	4	0	3	3	8	6	6	41
47	0	7	0	2	0	2	1	3	0	9	4	4	28
48	0	6	1	7	0	5	0	3	1	2	1	1	26
49	1	2	0	2	3	0	0	8	2	3	1	1	22
50	0	3	0	5	0	0	0	1	0	1	1	1	11
51	1	0	0	5	1	2	0	2	4	4	0	0	19
52	0	4	0	2	4	1	0	1	1	1	0	0	14
53	0	1	1	3	0	1	1	1	1	4	0	0	13
54	0	2	0	2	1	1	2	2	1	3	0	0	14
55	0	1	0	0	2	1	0	1	0	2	0	0	7
56	2	1	0	2	0	4	0	1	1	4	1	1	16
57	0	2	0	2	2	1	3	0	0	1	0	0	11
58	0	0	0	1	3	1	2	0	3	2	0	0	12
59	0	1	0	1	0	1	3	0	0	1	0	0	7
60	1	0	0	0	2	0	0	0	0	0	0	0	3

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Appendix L.5. (page 2 of 2)

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
61	0	0	0	2	3	0	1	0	1	0	1	8	
62	0	0	0	0	1	1	1	0	0	0	0	3	
63	1	0	0	0	1	1	1	1	2	1	0	8	
64	1	0	0	1	0	2	5	2	0	4	0	15	
65	0	0	0	0	1	0	2	0	1	2	0	6	
66	3	0	0	1	0	3	1	1	0	2	1	12	
67	1	0	0	0	0	3	1	0	1	0	0	6	
68	1	0	0	0	1	1	0	1	0	0	0	4	
69	1	0	0	0	0	0	2	0	1	0	0	4	
70	0	0	0	0	1	0	0	0	0	2	1	4	
71	0	0	0	0	1	0	1	0	0	0	0	2	
72	0	0	0	0	0	1	1	1	1	2	0	6	
73	0	0	0	0	0	1	0	1	0	0	0	2	
74	1	0	0	0	0	1	2	0	0	0	0	4	
75	0	0	0	0	0	3	0	0	0	1	0	4	
76	1	0	0	0	0	2	0	0	0	0	0	3	
77	0	0	0	0	1	0	0	0	0	0	0	1	
78	1	0	0	0	0	0	0	0	0	1	0	2	
	51	271	136	294	403	142	89	219	109	369	148	2231	

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 21 SANAK ISLAND | 27 WEST NAGAI |
| 22 MORZHOOVI BAY | 61 IVANOF BAY |
| 23 COLD BAY/BELKOFSKI | 62 MITROFANIA |
| 24 PAVLOF BAY/VOLCANO | 63 CHIGNIK BAY |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 64 KUJULIK BAY |
| 26 STEPOVAK BAY | |

Appendix L.6. Walleye pollock lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
11	0	0	0	1	0	0	0	0	0	0	0	0	1
13	0	0	2	0	2	0	0	0	0	0	0	0	4
14	0	1	1	0	0	0	0	0	0	0	0	0	2
15	0	2	2	0	0	0	0	0	0	0	0	0	4
16	0	3	19	5	0	0	0	0	0	1	0	0	28
17	0	36	38	5	0	0	0	0	0	1	0	0	80
18	0	50	18	21	0	0	0	0	0	0	0	0	89
19	0	74	11	19	0	0	0	0	0	0	3	0	107
20	0	58	3	8	0	0	0	0	0	0	2	0	71
21	0	6	1	4	0	0	0	0	0	1	0	0	12
22	0	11	0	2	1	0	0	0	0	0	0	0	14
23	0	1	0	1	0	0	0	0	0	0	0	0	2
25	0	0	1	0	0	0	0	0	0	0	0	0	1
26	0	0	0	0	0	0	0	0	0	1	0	0	1
28	0	0	1	1	0	0	0	0	0	0	0	0	2
29	0	1	0	1	0	0	0	0	0	0	0	0	2
30	0	3	0	9	0	0	0	0	0	0	0	0	12
31	0	1	0	20	0	0	0	0	0	0	0	0	21
32	0	4	2	26	0	0	0	0	0	0	1	0	33
33	0	8	1	50	0	0	0	0	0	0	0	0	59
34	0	14	5	51	0	0	0	0	0	0	0	0	70
35	0	7	7	40	0	0	1	0	0	0	2	0	57
36	0	7	13	21	0	0	0	0	0	0	2	0	43
37	0	4	9	20	1	0	2	0	0	0	1	0	37
38	0	1	3	48	2	0	0	0	0	0	2	0	56
39	0	1	5	77	3	1	0	1	0	0	7	0	95
40	0	1	4	167	1	1	3	0	2	11	0	0	190
41	0	1	1	218	1	5	3	1	1	12	5	0	248
42	0	7	1	215	3	4	3	2	2	24	10	0	271
43	0	10	2	182	2	13	9	5	3	42	5	0	273
44	1	9	2	107	12	13	12	10	4	61	29	0	260
45	1	19	7	72	28	17	15	18	12	76	37	0	302
46	1	27	3	45	36	32	25	19	21	87	51	0	347
47	6	33	1	39	41	36	37	22	22	95	50	0	382
48	7	31	2	37	57	43	39	28	23	87	47	0	401
49	7	43	3	42	52	55	28	32	21	62	35	0	380
50	9	42	3	38	43	55	32	24	32	63	39	0	380
51	10	43	4	36	53	55	25	25	27	58	20	0	356
52	8	57	9	42	50	58	17	27	28	52	16	0	364
53	6	65	6	47	48	44	13	21	16	45	14	0	325
54	8	79	10	47	43	33	10	25	14	42	9	0	320
55	10	72	14	69	39	34	4	26	9	51	8	0	336
56	5	66	18	60	30	20	11	15	11	27	4	0	267
57	2	44	28	66	21	23	4	8	8	23	3	0	230
58	5	43	22	47	19	17	4	9	9	21	2	0	198
59	6	34	22	36	15	14	5	10	4	8	1	0	155
60	3	15	23	41	11	6	3	9	2	7	4	0	124
61	2	9	27	26	9	4	2	5	2	9	0	0	95
62	0	6	16	26	11	1	2	1	3	3	0	0	69
63	0	8	14	22	2	1	0	4	0	6	0	0	57
64	0	2	10	25	3	1	0	2	0	4	0	0	47

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Appendix L.6. (page 2 of 2)

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
65	1	3	8	17	2	3	0	2	1	0	0	0	37
66	0	4	12	14	1	1	0	0	0	0	0	0	32
67	0	1	8	11	2	1	0	0	0	0	0	0	23
68	0	1	4	9	0	1	0	0	0	0	0	0	15
69	0	1	2	5	1	0	0	0	0	0	0	0	9
70	0	0	0	2	0	0	0	0	0	0	0	0	2
71	0	0	1	6	0	0	0	0	0	0	0	0	7
72	0	1	0	1	0	0	0	0	0	0	0	0	2
73	0	0	1	1	0	0	0	0	0	0	0	0	2
74	0	0	1	0	0	0	0	0	0	0	0	0	1
75	0	0	2	0	0	0	0	0	0	0	0	0	2
79	0	0	1	0	0	0	0	0	0	0	0	0	1
80	0	0	0	1	0	0	0	0	0	0	0	0	1
	98	1070	434	2249	645	592	309	351	277	995	394	7414	

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 21 SANAK ISLAND | 27 WEST NAGAI |
| 22 MORZHOOVI BAY | 61 IVANOF BAY |
| 23 COLD BAY/BELKOFSKI | 62 MITROFANIA |
| 24 PAVLOF BAY/VOLCANO | 63 CHIGNIK BAY |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 64 KUJULIK BAY |
| 26 STEPPOVAK BAY | |

Appendix L.7. Pacific cod lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP													TOTAL
	21	22	23	24	25	26	27	61	62	63	64			
12	0	0	0	0	0	0	0	0	0	0	0	1	0	1
16	0	0	0	1	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	1	0	0	0	0	0	0	0	0	1
19	0	0	1	2	0	0	0	0	0	0	0	0	0	3
20	0	0	0	7	0	0	0	0	0	0	0	0	0	7
21	0	0	0	5	1	0	0	0	0	0	0	0	0	6
22	0	1	0	9	1	0	0	0	0	0	0	0	0	11
23	0	0	0	11	4	0	0	0	0	0	0	0	1	16
24	0	0	1	14	0	0	0	0	0	0	0	0	1	16
25	0	0	0	8	5	0	0	0	0	0	0	0	0	13
26	0	1	2	21	15	0	0	0	0	0	0	0	1	40
27	0	0	1	17	11	0	0	0	0	0	0	0	2	31
28	0	1	0	18	14	0	0	0	0	0	0	0	1	34
29	0	0	0	14	18	0	0	0	0	0	0	0	0	32
30	0	0	1	15	9	0	0	0	0	0	0	0	0	25
31	0	0	0	7	17	0	0	0	0	0	0	0	1	25
32	0	3	0	4	9	0	0	0	0	0	0	0	0	16
33	0	7	0	2	2	0	0	0	0	0	0	0	0	11
34	0	6	0	1	1	0	0	0	0	0	0	0	0	8
35	0	17	3	5	0	0	0	0	0	0	0	0	0	25
36	0	21	6	4	0	0	0	0	0	0	0	0	0	31
37	0	39	10	9	2	0	0	0	0	0	0	0	0	60
38	0	31	10	20	1	0	1	0	0	1	0	0	0	64
39	0	38	6	13	2	0	0	0	0	3	0	0	0	62
40	0	36	10	15	2	1	0	0	0	0	0	0	0	64
41	0	25	10	18	1	0	0	0	0	1	0	0	0	55
42	0	18	14	11	2	0	1	0	0	3	0	0	0	49
43	0	9	7	12	2	0	0	0	0	2	0	0	0	32
44	0	11	7	9	5	0	0	0	0	1	0	0	0	33
45	0	10	2	8	1	1	0	0	0	3	1	0	0	26
46	0	12	5	8	4	0	2	0	0	0	0	0	0	31
47	1	21	5	12	2	1	0	0	0	2	1	0	0	45
48	0	17	9	12	2	0	0	1	0	2	0	0	0	43
49	0	37	5	5	2	0	0	1	0	1	0	0	0	51
50	0	27	8	16	7	0	4	1	1	1	0	1	0	65
51	0	29	7	20	4	0	3	0	1	1	1	0	0	65
52	0	35	14	26	5	3	1	1	3	6	0	0	0	94
53	0	34	11	26	4	0	2	1	3	4	1	0	0	86
54	0	30	12	26	8	0	3	0	2	4	0	0	0	85
55	1	28	11	22	10	3	2	1	6	6	0	0	0	90
56	0	37	21	25	10	1	3	1	6	3	0	0	0	107
57	0	30	19	33	5	1	4	1	8	9	1	0	0	111
58	1	27	17	40	11	2	6	0	6	6	0	0	0	116
59	1	25	14	40	10	4	6	0	4	12	2	0	0	118
60	1	25	24	42	12	3	5	6	6	6	16	1	0	141
61	3	17	18	41	8	1	4	4	9	15	2	0	0	122
62	1	22	19	40	11	5	4	3	7	10	3	0	0	125
63	1	14	13	49	14	6	1	3	8	12	0	0	0	121
64	0	15	16	36	7	1	4	2	3	15	1	0	0	100
65	1	13	21	30	9	2	2	3	6	13	4	0	0	104
66	2	9	12	29	12	2	5	1	4	4	0	0	0	80
67	2	8	17	26	6	3	4	1	4	9	3	0	0	83

-Continued-

Appendix L.7. (page 2 of 2)

LENGTH (CM)	AREA GROUP												TOTAL
	21	22	23	24	25	26	27	61	62	63	64		
68	0	4	12	26	6	4	1	1	2	5	3	64	
69	0	4	6	16	4	3	3	0	4	5	1	46	
70	0	3	5	17	8	1	0	0	2	3	1	40	
71	1	5	7	12	2	1	0	0	3	2	1	34	
72	1	2	10	15	1	1	1	1	2	3	0	37	
73	0	6	5	8	1	1	2	1	1	1	1	27	
74	0	3	9	5	5	0	2	0	2	5	1	32	
75	0	4	0	5	4	1	1	0	0	2	0	17	
76	1	1	1	3	3	0	2	0	1	5	0	17	
77	0	1	1	3	3	1	1	0	3	0	0	13	
78	1	2	2	2	4	2	3	0	0	1	0	17	
79	0	0	1	3	3	0	1	0	0	2	0	10	
80	1	2	2	3	1	1	4	0	1	0	0	15	
81	0	2	5	2	2	0	2	0	0	0	0	13	
82	0	1	1	3	1	0	1	0	0	1	0	8	
83	0	2	1	2	1	0	3	0	0	2	0	11	
84	0	0	0	1	1	0	2	0	1	1	0	6	
85	2	2	0	1	1	0	1	0	0	0	0	7	
86	2	0	0	3	1	0	2	0	0	0	0	8	
87	0	0	0	0	2	2	1	0	0	0	0	5	
89	0	0	0	0	1	0	0	0	0	0	0	1	
90	0	0	0	0	1	0	0	0	0	0	0	1	
91	0	1	0	1	0	0	0	0	0	0	0	2	
93	0	2	0	0	0	0	0	0	0	0	0	2	
94	0	1	0	0	0	0	0	0	0	0	0	1	
95	1	1	0	0	0	0	1	0	0	0	0	3	
99	0	0	0	0	0	0	1	0	0	0	0	1	
	25	835	457	1015	345	58	103	33	125	188	35	3219	

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 21 SANAK ISLAND | 27 WEST NAGAI |
| 22 MORZHOOVI BAY | 61 IVANOF BAY |
| 23 COLD BAY/BELKOFSKI | 62 MITROFANIA |
| 24 PAVLOF BAY/VOLCANO | 63 CHIGNIK BAY |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 64 KUJULIK BAY |
| 26 STEPOVAK BAY | |

Appendix L.8. Sablefish lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP					TOTAL
	25	26	62	63	64	
42	1	0	0	0	0	1
47	0	0	0	0	1	1
49	0	0	0	0	1	1
56	0	0	1	1	1	3
58	1	0	0	0	0	1
59	0	1	0	0	0	1
62	0	1	0	0	0	1
69	0	1	0	0	0	1
	2	3	1	1	3	10

List of Area Groups:

- 25 BEAVER/BALBOA BAY/UNGA STRAIT
- 26 STEPPOVAK BAY
- 62 MITROFANIA
- 63 CHIGNIK BAY
- 64 KUJULIK BAY

Appendix L.9. Rougheye rockfish lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP								TOTAL
	21	22	24	25	26	61	62	63	
25	0	0	0	0	3	0	0	0	3
28	0	1	0	0	0	2	0	1	4
29	0	0	0	0	2	2	1	1	6
30	0	0	0	0	2	2	1	1	6
31	0	0	1	0	0	1	1	1	4
32	0	0	0	0	1	0	0	4	5
33	0	0	0	0	0	2	0	2	4
34	0	0	0	0	2	0	0	0	2
35	2	0	0	0	0	2	1	0	5
36	0	0	0	2	0	0	2	1	5
37	0	0	0	0	2	1	0	1	4
38	0	0	0	0	1	0	1	3	5
39	0	0	0	0	1	0	1	4	6
40	0	0	0	0	2	1	0	3	6
41	0	0	0	0	0	0	0	1	1
42	0	0	0	0	1	0	0	1	2
48	0	0	0	0	1	0	0	0	1
	2	1	1	2	18	13	8	24	69

List of Area Groups:

- | | |
|----------------------------------|------------------|
| 21 SANAK ISLAND | 26 STEPPOVAK BAY |
| 22 MORZHOOVI BAY | 61 IVANOF BAY |
| 24 PAVLOF BAY/VOLCANO | 62 MITROFANIA |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 63 CHIGNIK BAY |

Appendix L.10. Rex sole lengths (cm) by area from a trawl survey of Alaska Peninsula waters,
August, 1990.

LENGTH (CM)	AREA GROUP									TOTAL
	21	22	23	25	26	27	61	62	63	
18	0	1	0	0	0	0	0	0	0	1
24	0	0	0	1	0	0	0	0	0	1
25	0	2	0	0	0	0	0	0	0	2
26	1	0	0	0	0	0	0	0	0	1
27	3	1	0	1	0	0	0	0	0	5
28	3	0	0	0	0	0	0	0	1	4
29	3	2	0	0	0	1	0	0	0	6
30	1	1	0	0	0	0	1	0	0	3
31	1	1	0	0	0	0	1	1	2	6
32	0	0	1	0	0	0	0	0	2	3
33	1	0	0	0	0	0	0	0	0	1
34	0	0	0	0	0	0	0	1	0	1
35	1	0	0	0	0	0	0	0	0	1
36	0	0	0	0	0	0	0	1	0	1
39	1	0	0	0	0	0	0	0	0	1
43	0	0	0	1	0	0	0	0	0	1
44	0	0	0	0	1	0	0	0	0	1
<hr/>										
15	15	8	1	3	1	1	2	3	5	39

List of Area Groups:

- | | |
|----------------------------------|----------------|
| 21 SANAK ISLAND | 27 WEST NAGAI |
| 22 MORZHOOVOI BAY | 61 IVANOF BAY |
| 23 COLD BAY/BELKOFSKI | 62 MITROFANIA |
| 25 BEAVER/BALBOA BAY/UNGA STRAIT | 63 CHIGNIK BAY |
| 26 STEPPOVAK BAY | |

Appendix L.11. Dover sole lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP						TOTAL
	21	22	27	62	63	64	
24	0	0	0	0	0	1	1
26	0	1	0	0	0	0	1
31	0	0	0	1	0	0	1
32	0	0	0	0	0	1	1
34	0	0	0	0	1	0	1
35	0	0	0	2	0	0	2
36	0	0	0	0	2	0	2
37	1	0	0	0	0	0	1
39	0	0	1	0	0	0	1
40	1	0	0	1	1	0	3
41	1	0	0	0	1	0	2
	3	1	1	4	5	2	16

List of Area Groups:

21 SANAK ISLAND
 22 MORZHOOVOI BAY
 27 WEST NAGAI

62 MITROFANIA
 63 CHIGNIK BAY
 64 KUJULIK BAY

Appendix L.12. Butter sole lengths (cm) by area from a trawl survey of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	AREA GROUP						TOTAL
	22	23	25	27	62	64	
26	0	0	1	0	0	0	1
27	0	0	4	0	0	0	4
28	0	2	9	1	0	0	12
29	1	3	10	1	0	0	15
30	3	6	6	0	0	0	15
31	0	5	1	1	0	0	7
32	0	1	3	0	0	1	5
33	2	0	1	0	0	0	3
34	1	0	0	0	0	0	1
35	1	0	0	1	0	0	2
36	2	0	0	0	0	0	2
37	0	1	0	0	0	0	1
38	1	0	0	0	0	0	1
39	0	0	0	0	1	0	1
	11	18	35	4	1	1	70

List of Area Groups:

22 MORZHOOVI BAY
 23 COLD BAY/BELKOFSKI
 25 BEAVER/BALBOA BAY/UNGA STRAIT

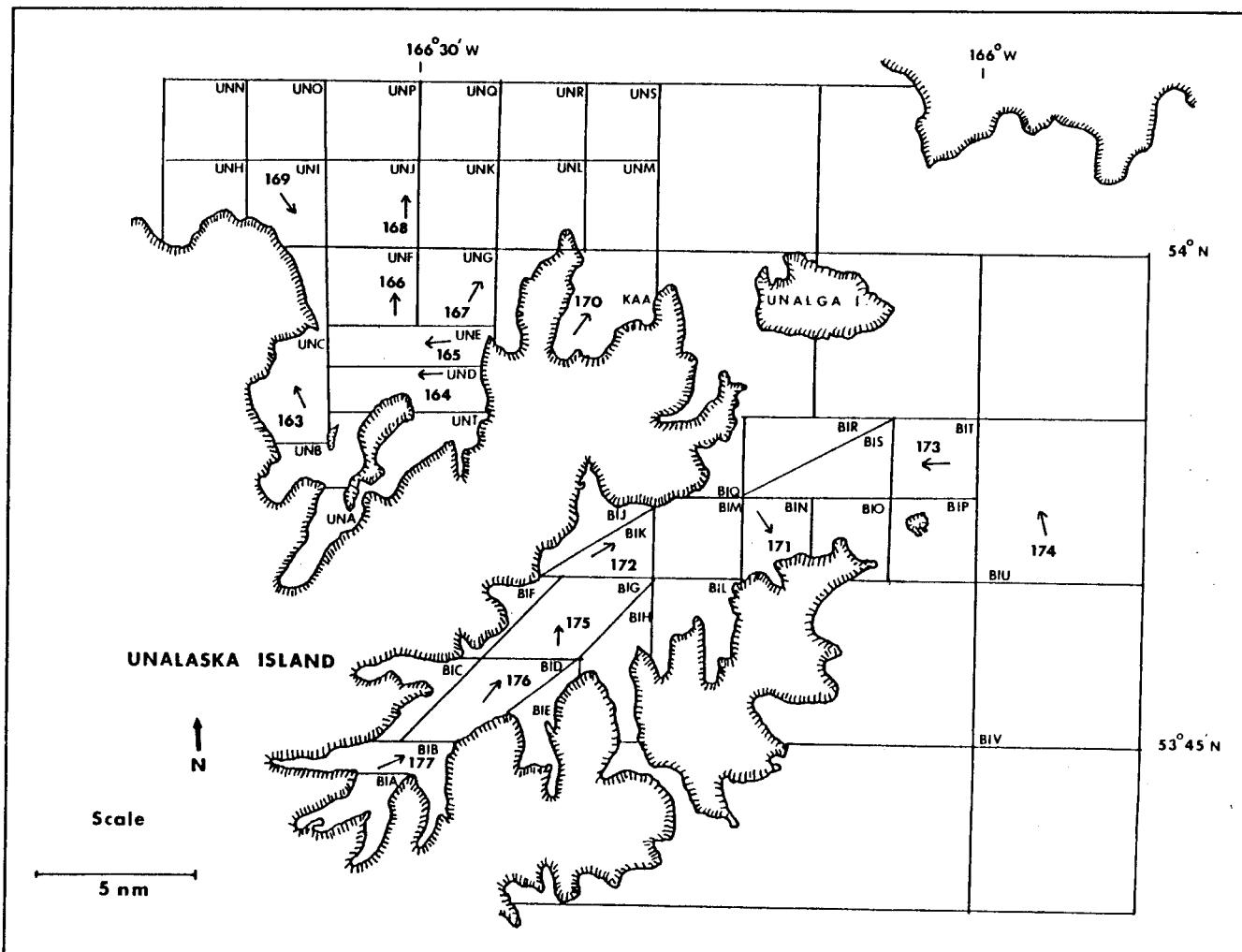
27 WEST NAGAI
 62 MITROFANIA
 64 KUJULIK BAY

Appendix J.13. Pacific ocean perch lengths (cm) by area from a trawl survey
of Alaska Peninsula waters, August, 1990.

LENGTH (CM)	<u>AREA GROUP</u> 27	TOTAL
34	1	1
	1	1

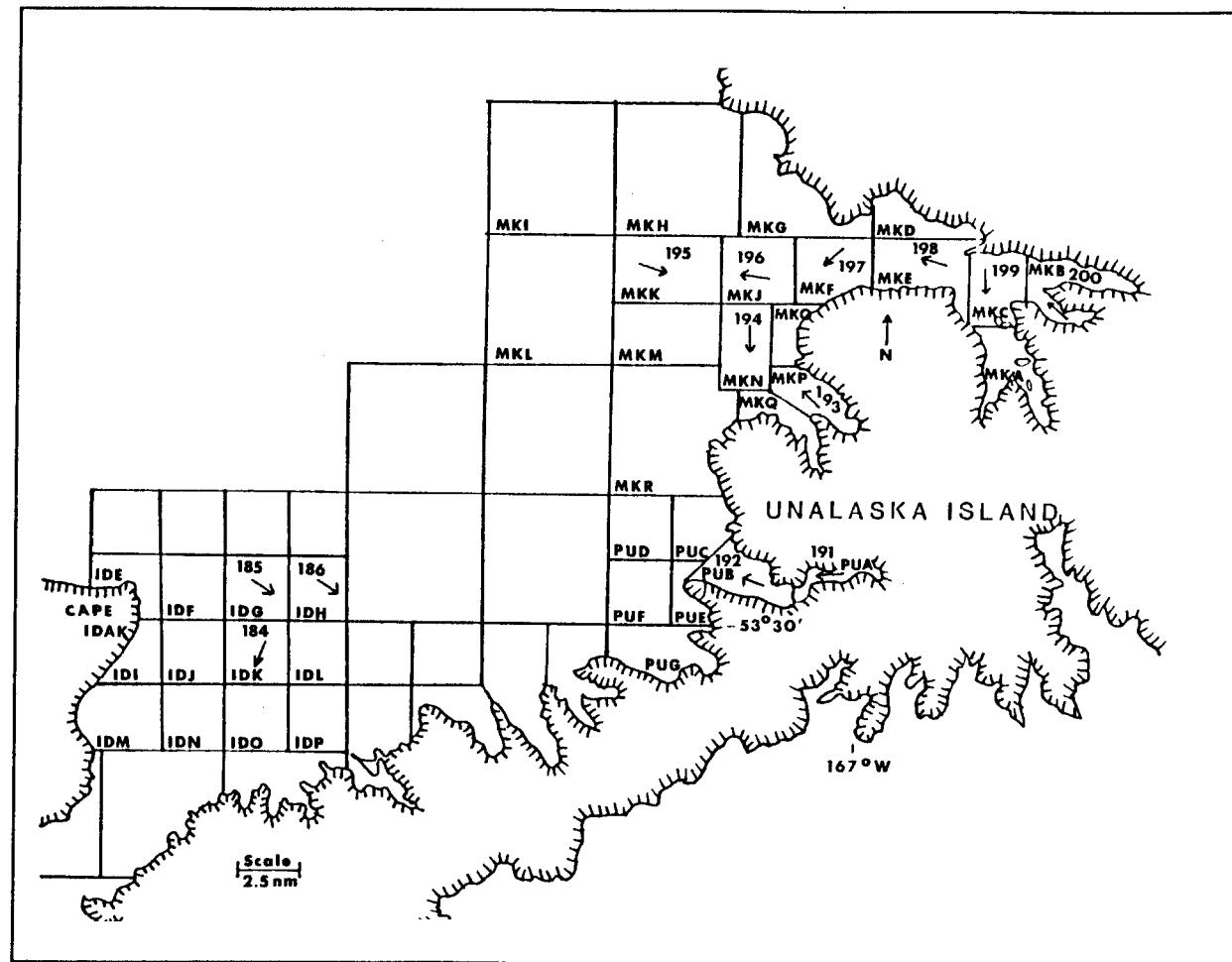
List of Area Groups:

27 WEST NAGAI

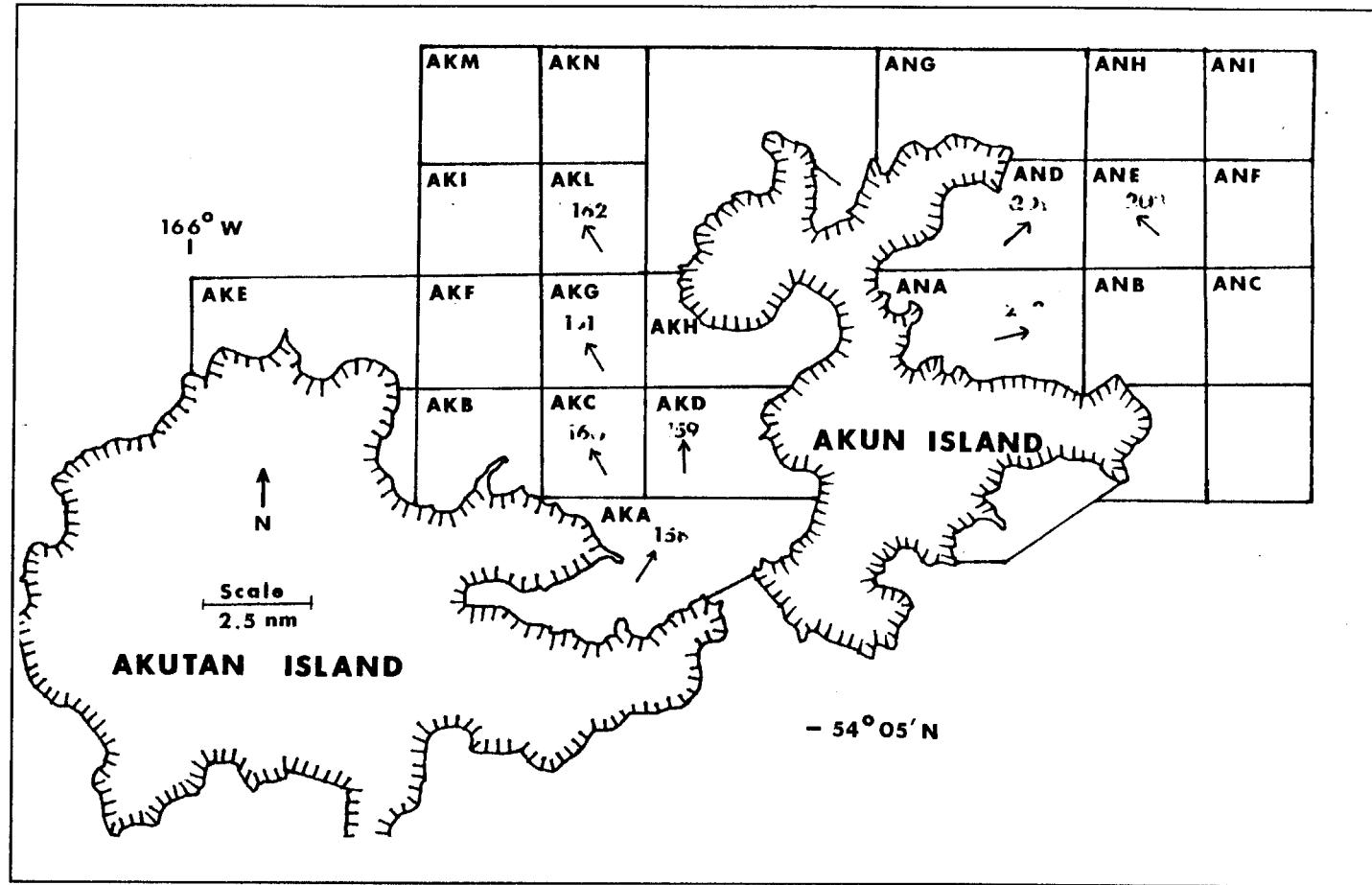


Appendix M.1

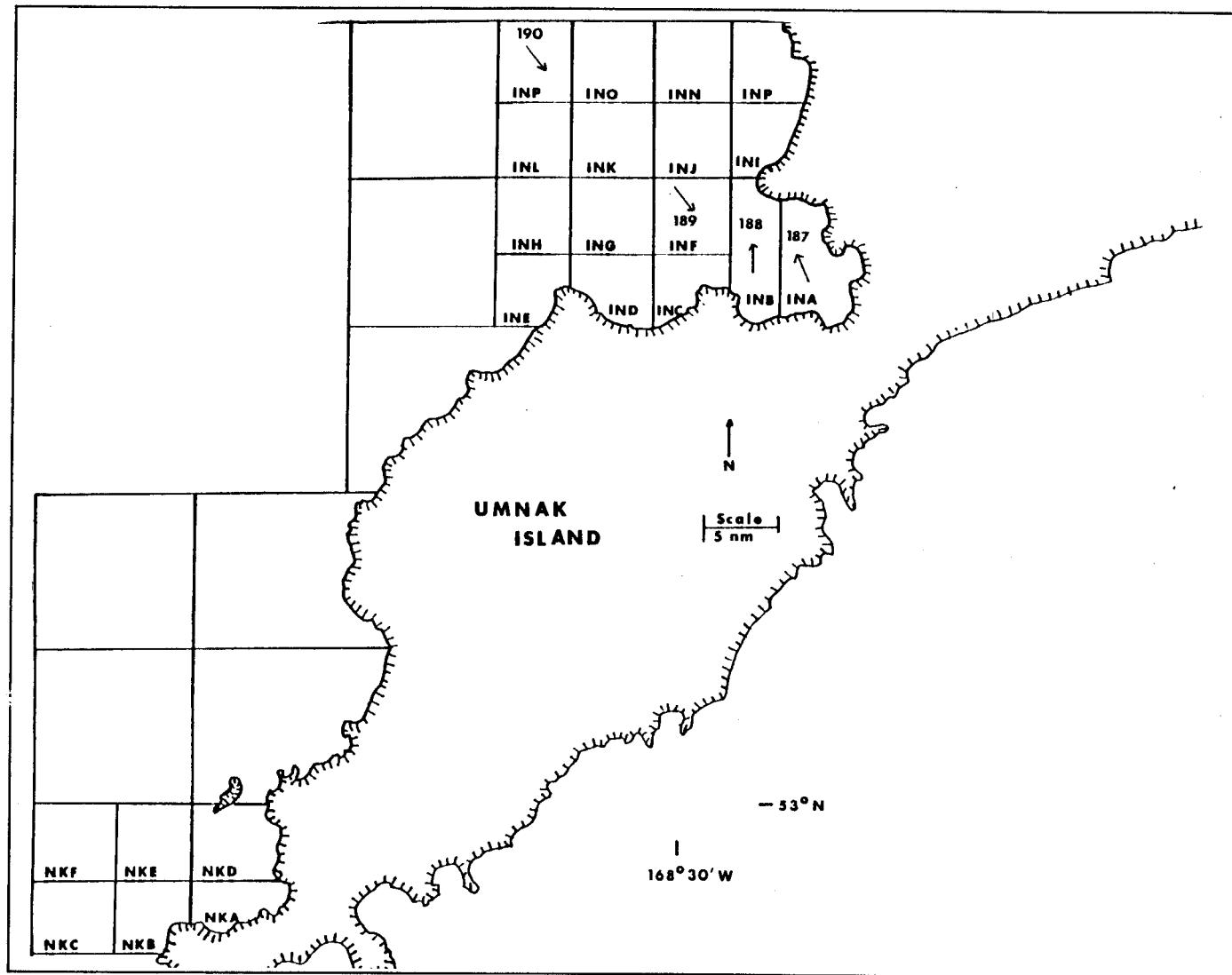
Station location and number designations and trawl haul (arrows) location and numbers, Unalaska Bay and Beaver Inlet: July 1990.



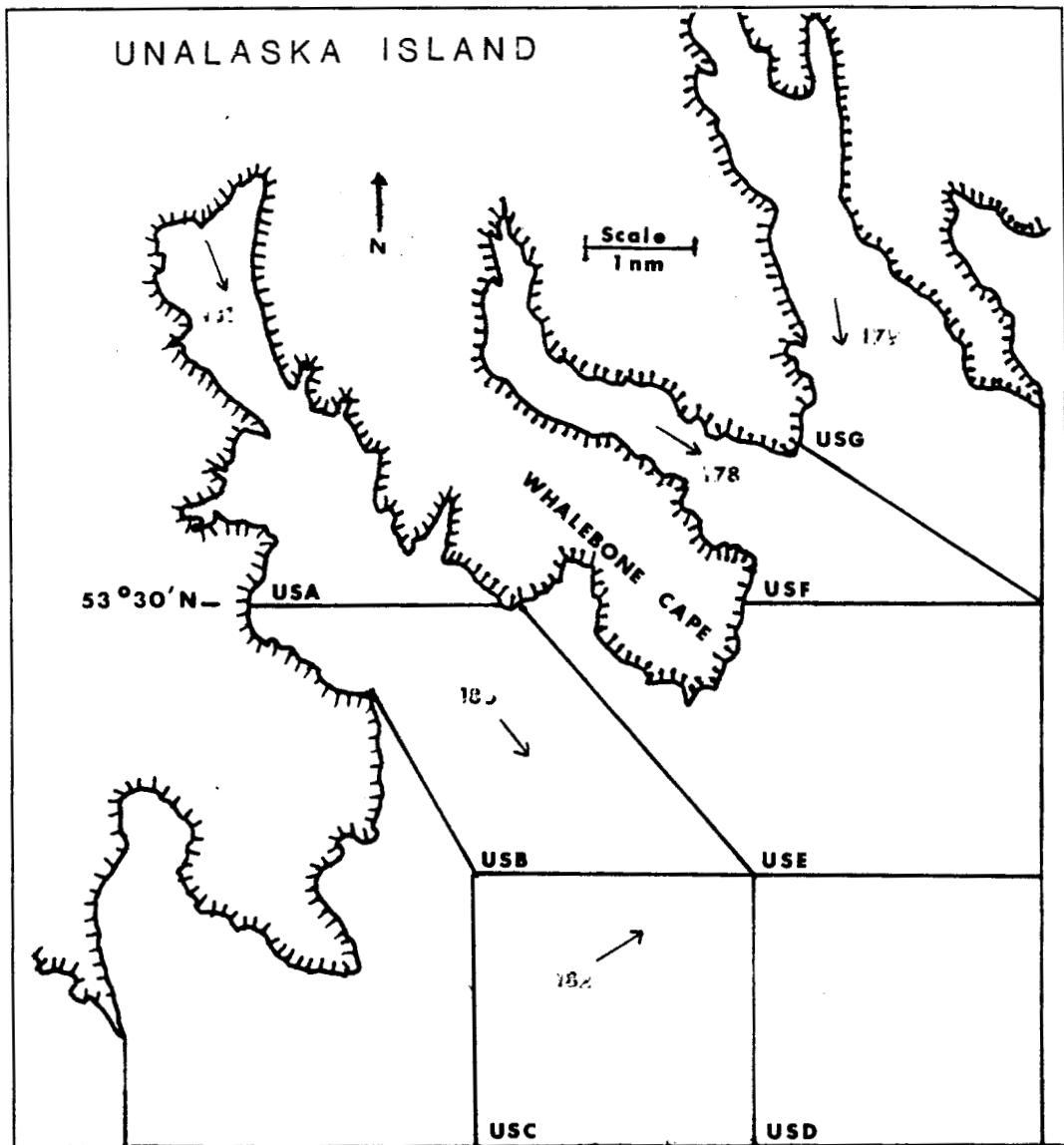
Appendix M.2 Station location and number designations and trawl haul (arrows) location and numbers, Cape Idak, Pumistone Bay, and Makushin Bay: July 1990.



Appendix M.3 Station location and number designations and trawl haul (arrows) location and numbers, Akutan Bay and Akun Bay: July and August 1990.



Appendix M.4 Station location and number designations and trawl haul (arrows) location and numbers, Inanudak Bay area: July 1990.



Appendix M.5 Station location and number designations and trawl haul (arrows) locations and numbers, Usوف Bay area: July 1990.

Appendix N. Number of Tanner crab per 1.85 km (1 nautical mile) in 1990 in the Eastern Aleutian District with population index by area.

Station	Tow #	Females			No. sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
AKUTAN BAY														
AKA 158	66	14	80	60	88	34	3	0	0	0	0	0	185	265
AKC 160	268	36	304	354	219	63	12	0	0	0	0	0	648	952
AKD 159	94	164	258	168	354	168	48	0	0	0	0	0	738	996
AKG 161	10	38	48	19	116	68	11	2	0	0	0	2	216	264
AKL 162	9	546	555	9	121	112	76	14	0	0	0	14	332	887
Pop Index	464,232	779,189	1,243,422	621,581	927,652	454,521	148,139	15,190	0	0	15,190	2,167,083	3,410,505	
BEAVER INLET														
BIB 177	50	50	100	29	16	12	11	1	1	0	2	70	170	
BID 176	220	1	221	235	5	0	0	0	0	0	0	240	461	
BIG 175	267	7	274	282	11	2	0	0	0	0	0	295	569	
BIK 172	516	240	756	352	320	144	32	4	0	0	4	852	1,608	
BIN 171	194	6	200	290	16	4	0	0	0	0	0	310	510	
BIT 173	3	0	3	0	0	0	0	0	0	0	0	0	3	
BIU 174	0	0	0	0	1	0	0	0	0	0	0	1	1	
Pop Index	943,653	190,343	1,133,996	931,323	229,433	97,915	27,056	3,093	772	0	3,864	1,289,592	2,423,588	
UNALASKA/KALEKTA BAY														
KAA 170	4	0	4	0	1	0	0	0	0	0	0	1	5	
UNC 163	26	324	350	15	23	60	33	9	0	2	11	142	492	
UND 164	6	0	6	10	6	3	1	0	0	0	0	20	26	
UNE 165	8	4	12	11	27	15	8	2	1	0	3	64	76	
UNF 166	272	18	290	125	5	0	2	1	0	0	1	133	423	
UNG 167	28	2	30	27	3	1	1	0	0	0	0	32	62	
UNI 169	8	6	14	9	3	0	0	0	0	0	0	12	26	
UNJ 168	832	8	840	510	0	4	0	0	0	0	0	514	1,354	
Pop Index	1,121,780	359,433	1,481,213	667,671	60,258	78,876	42,943	11,493	767	2,002	14,262	864,010	2,345,224	
MAKUSHIN BAY														
MKB 200	66	31	97	38	17	10	33	8	0	0	8	106	203	
MKC 199	34	21	55	33	15	13	6	0	0	0	0	66	121	
MKE 198	48	141	189	29	24	19	32	1	12	0	13	117	306	
MKF 197	273	4	277	234	6	8	8	0	1	0	1	257	534	
MKJ 196	10	1	11	14	2	0	0	0	0	0	0	16	27	
MKK 195	1	0	1	5	0	5	10	0	0	4	0	24	25	
MKN 194	5	72	77	3	3	15	27	0	0	0	0	48	125	
MKP 193	62	8	70	65	31	3	1	0	0	0	0	100	170	
Pop Index	440,147	313,415	753,562	368,978	83,153	76,482	125,451	6,927	23,030	0	29,956	684,021	1,437,583	
USOF BAY														
USA 181	165	23	188	172	137	47	2	1	0	0	1	359	547	
USB 180	8	13	21	1	23	3	1	0	0	0	0	28	49	
USC 182	1	0	1	3	2	0	0	0	0	0	0	5	6	
USF 178	1	1	2	0	0	0	0	0	0	0	0	0	2	

-Continued-

Appendix N. (page 2 of 2)

Station	Tow #	Females			No. sublegal Males by size (mm)				Recruit	Postrecruit		Total Legal	Total Male	Total Crab
		Juv	Adult	Total	<70	70-91	92-114	>114		<165mm	>164mm			
USG	179	0	0	0	1	0	0	0	0	0	0	0	1	1
Pop Index		103,322	25,229	128,551	103,385	100,755	29,621	2,026	574	0	0	574	236,361	364,912
AKUN BAY														
ANA 202		1	1	2	0	0	0	0	0	0	0	0	0	2
AND 201		1	0	1	0	0	0	0	0	0	0	0	0	1
ANE 203		0	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		2,093	1,063	3,156	0	0	0	0	0	0	0	0	0	3,156
PUMICESTONE BAY														
PUA 191		11	0	11	13	0	0	0	0	0	0	0	13	24
PUB 192		69	0	69	68	1	0	0	0	0	0	0	69	138
Pop Index		48,859	0	48,859	48,606	674	0	0	0	0	0	0	49,281	98,140
CAPE IDAK														
IDG 185		2	0	2	0	0	0	0	0	2	0	2	2	4
IDH 186		0	1	1	0	0	0	0	0	0	0	0	0	1
IDK 184		1	3	4	0	3	0	3	0	1	0	1	7	11
Pop Index		3,255	3,662	6,917	0	2,713	0	2,713	0	3,255	0	3,255	8,680	15,597
INANUDAK BAY														
INA 187		0	0	0	0	0	1	0	0	0	0	0	1	1
INB 188		1	0	1	0	0	0	0	0	0	0	0	0	1
INF 189		4	0	4	0	0	2	1	0	0	0	0	3	7
INP 190		0	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		4,657	0	4,657	0	0	3,110	949	0	0	0	0	4,059	8,716
EASTERN ALEUTIAN														
GRAND TOTAL		3,131,999	1,672,335	4,804,334	2,741,545	1,404,638	740,525	349,277	37,276	27,823	2,002	67,102	5,303,086	10,107,419

Appendix O. Number of king crab per km (1 nautical mile) in 1990 in the Dutch Harbor Area with population index by area.

Station	Tow #	Females			Prerecruit Males				Recruit	Post Recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
AKUTAN BAY													
AKA	158	0	0	0	0	0	0	0	0	0	0	0	0
AKC	160	0	0	0	0	0	0	0	0	0	0	0	0
AKD	159	0	0	0	0	0	0	0	0	0	0	0	0
AKG	161	0	0	0	0	0	0	0	0	0	0	0	0
AKL	162	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	0	0	0	0	0
BEAVER INLET													
BIB	177	0	0	0	0	0	0	0	0	0	0	0	0
BID	176	0	0	0	0	0	0	0	0	0	0	0	0
BIG	175	0	0	0	0	0	0	0	0	0	0	0	0
BIK	172	0	0	0	0	0	0	0	0	0	0	0	0
BIN	171	0	0	0	0	0	0	0	0	0	0	0	0
BIT	173	0	0	0	0	0	0	0	0	0	0	0	0
BIU	174	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	0	0	0	0	0
UNALASKA/KALEKTA BAY													
KAA	170	0	0	0	0	0	0	0	0	0	0	0	0
UNC	163	0	0	0	0	0	0	0	0	0	0	0	0
UND	164	0	0	0	0	0	0	0	1	6	7	7	7
UNE	165	0	0	0	0	0	0	0	0	0	0	0	0
UNF	166	0	0	0	0	0	0	0	0	0	0	0	0
UNG	167	0	0	0	0	0	0	0	0	0	0	0	0
UNI	169	0	0	0	0	0	0	0	0	0	0	0	0
UNJ	168	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	767	4,603	5,370	5,370	5,370
MAKUSHIN BAY													
MKB	200	0	0	0	0	0	0	0	0	0	0	0	0
MKC	199	0	0	0	0	0	0	0	0	0	0	0	0
MKE	198	0	0	0	0	0	0	0	0	0	0	0	0
MKF	197	0	0	0	0	0	0	0	1	0	1	1	1
MKJ	196	0	0	0	0	0	0	0	0	0	0	0	0
MKK	195	0	0	0	0	0	0	0	0	0	0	0	0
MKN	194	0	0	0	0	0	0	0	0	0	0	0	0
MKP	193	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	1,045	0	1,045	1,045	1,045
USOF BAY													
USA	181	0	0	0	0	0	0	0	1	0	1	1	1
USB	180	0	0	0	0	0	0	0	0	0	0	0	0

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Appendix O. (page 2 of 2)

Station	Tow #	Females			Prerecruit Males				Recruit	Post Recruit	Total Legal	Total Male	Total Crab
		Juv	Adult	Total	IV	III	II	I					
USC	182	0	0	0	0	0	0	0	0	0	0	0	0
USF	178	0	0	0	0	0	0	0	0	0	0	0	0
USG	179	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	878	0	878	878	878
AKUN BAY													
ANA	202	0	0	0	0	0	0	0	0	0	0	0	0
AND	201	0	0	0	0	0	0	0	0	0	0	0	0
ANE	203	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	0	0	0	0	0
PUMICESTONE BAY													
PUA	191	0	0	0	0	0	0	0	0	0	0	0	0
PUB	192	0	1	1	0	0	0	0	0	1	1	1	2
Pop Index		0	949	949	0	0	0	0	0	949	949	949	1,899
CAPE IDAK													
IDG	185	0	0	0	0	0	0	0	0	0	0	0	0
IDH	186	0	0	0	0	0	0	0	0	0	0	0	0
IDK	184	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	0	0	0	0	0
INANUDAK BAY													
INA	187	0	0	0	0	0	0	0	0	0	0	0	0
INB	188	0	0	0	0	0	0	0	0	0	0	0	0
INF	189	0	0	0	0	0	0	0	0	0	0	0	0
INP	190	0	0	0	0	0	0	0	0	0	0	0	0
Pop Index		0	0	0	0	0	0	0	0	0	0	0	0
DUTCH HARBOR													
GRAND TOTAL		0	949	949	0	0	0	0	2,690	5,552	8,242	8,242	9,191

Appendix P.1. Halibut lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
14	1	0	0	0	0	0	0	1
25	0	0	0	0	1	0	0	1
26	0	0	0	0	0	0	2	2
28	1	0	0	0	0	0	1	2
30	1	0	0	0	1	0	0	2
31	2	0	0	0	0	0	0	2
32	2	0	0	0	0	0	0	2
33	1	0	0	0	0	0	1	2
34	5	0	0	0	0	0	1	6
35	2	0	1	0	0	0	1	4
36	5	0	1	0	0	0	0	6
37	3	0	1	0	0	0	0	4
38	3	0	0	0	0	0	0	3
39	3	0	2	0	0	0	0	5
40	1	0	0	0	0	0	0	1
41	1	0	1	0	0	0	0	2
42	0	0	1	1	0	0	0	2
43	1	0	1	0	0	1	0	3
44	2	0	0	0	0	0	0	2
45	0	0	0	1	0	0	1	2
46	3	1	0	2	0	0	0	6
47	0	0	1	1	1	1	0	4
48	1	0	1	0	0	0	0	2
49	0	0	0	1	0	0	0	1
50	0	1	1	1	0	0	0	3
51	0	0	2	0	0	0	0	2
52	2	0	0	0	0	1	0	4
53	0	0	4	1	0	0	0	5
54	0	0	1	0	0	0	0	1
55	0	0	1	0	1	0	1	3
56	2	1	2	0	0	1	0	6
57	2	0	2	0	0	0	0	4
58	0	2	0	1	3	0	0	6
59	0	0	2	1	1	1	1	6
60	0	0	4	0	1	0	0	5
61	0	0	1	0	1	2	0	4
62	0	1	1	0	0	0	0	2
63	1	0	0	1	2	0	1	5
64	0	0	0	1	1	0	0	2
65	0	0	0	0	0	1	0	1
66	0	0	0	0	1	0	0	1
67	1	0	0	0	0	1	0	2

-Continued-

Appendix P.1. (page 2 of 2)

LENGTH (CM)	AREA GROUP								TOTAL
	31	32	33	34	35	38	39		
68	0	0	1	1	0	0	0		2
70	0	2	0	0	1	0	0		3
71	1	0	1	2	1	0	0		5
72	0	0	0	2	1	1	0		4
73	0	0	0	1	1	0	0		2
74	0	1	0	0	0	0	0		1
75	0	0	1	2	0	0	0		3
76	0	0	0	1	0	0	0		1
78	0	0	0	2	0	0	0		4
79	0	0	0	0	0	0	1		1
80	0	0	2	0	0	0	0		2
84	0	0	2	0	0	1	0		3
85	0	0	1	0	0	0	1		2
86	0	0	0	0	0	1	0		1
87	0	0	0	1	0	1	0		2
91	1	1	1	0	0	0	0		3
92	0	0	1	0	0	0	0		1
102	0	0	0	1	0	0	0		1
108	0	0	0	1	0	0	0		1
109	0	1	0	0	0	0	0		1
110	1	1	0	0	0	0	0		2
116	0	0	0	0	0	0	1		1
127	0	1	0	0	0	0	0		1
129	0	1	0	0	0	0	0		1
176	0	1	0	0	0	0	0		1
230	0	0	0	0	0	0	1		1
	49	15	41	26	20	11	17	179	

List of Area Groups:

31 AKUTAN/AKUN BAYS
 32 BEAVER INLET
 33 UNALASKA/KALEKTA BAYS
 34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY
 38 CAPE IDAK
 39 INANUDAK BAY

Appendix P.2. Flathead sole lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
7	1	0	2	10	2	0	0	15
8	3	1	10	7	0	0	9	30
9	2	1	6	3	1	0	18	31
10	0	0	0	3	3	0	5	11
11	3	0	1	12	9	0	0	25
12	1	1	3	14	7	0	0	26
13	5	3	11	28	7	0	1	55
14	9	4	16	31	2	0	3	65
15	10	0	22	26	25	0	2	85
16	15	2	21	12	18	0	1	69
17	10	3	26	20	12	0	1	72
18	6	0	23	22	8	0	3	62
19	8	1	13	15	8	0	2	47
20	4	1	8	26	8	0	3	50
21	10	8	5	30	8	0	3	64
22	9	11	12	40	12	0	1	85
23	8	5	20	44	10	0	0	87
24	11	17	20	56	13	0	0	117
25	8	10	13	49	14	0	1	95
26	10	12	17	68	9	0	1	117
27	8	6	26	51	9	0	1	101
28	7	10	26	52	5	0	0	100
29	9	4	22	36	7	0	2	80
30	5	10	22	27	2	1	0	67
31	3	9	17	13	2	3	1	48
32	5	11	14	9	0	2	1	42
33	2	12	3	5	1	1	2	26
34	1	6	4	7	3	1	0	22
35	2	7	8	11	2	0	0	30
36	3	5	4	5	0	0	0	17
37	1	3	3	5	1	2	0	15
38	2	6	4	4	0	0	0	16
39	0	7	0	4	1	0	0	12
40	0	1	0	1	0	0	0	2
41	0	4	0	1	1	0	0	6
42	0	6	0	1	0	0	0	7
43	0	0	2	0	0	0	1	3
44	0	1	0	1	0	0	0	2
45	0	2	0	0	0	0	0	2
46	0	1	1	0	0	0	0	2
47	0	1	0	2	0	0	0	3

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Appendix P.2. (page 2 of 2)

LENGTH (CM)	AREA GROUP						TOTAL
	31	32	33	34	35	38	
50	0	1	0	0	0	0	1
51	0	1	0	0	0	0	1
	181	194	405	751	210	10	62 1813

List of Area Groups:

31 AKUTAN/AKUN BAYS
32 BEAVER INLET
33 UNALASKA/KALEKTA BAYS
34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY
38 CAPE IDAK
39 INANUDAK BAY

**Appendix P.3. Rock sole lengths (cm) by area from a trawl survey of Eastern Aleutians,
July, 1990.**

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
6	0	0	0	0	0	0	1	1
7	0	0	0	0	0	0	11	11
8	0	0	1	0	0	0	15	16
9	0	0	3	0	0	1	11	15
10	1	0	3	0	0	0	14	18
11	0	0	0	0	0	2	20	22
12	1	0	0	0	0	0	20	21
13	2	0	0	0	0	1	23	26
14	0	0	1	0	0	1	22	24
15	0	0	2	0	0	0	22	24
16	2	0	4	0	0	3	21	30
17	2	2	0	0	0	1	16	21
18	5	1	1	0	0	5	11	23
19	1	1	0	0	0	2	8	12
20	6	0	2	0	0	0	14	22
21	3	0	1	0	0	1	12	17
22	7	0	2	0	0	0	5	14
23	5	0	0	0	1	0	5	11
24	13	0	5	0	0	2	6	26
25	12	0	4	0	3	2	3	24
26	6	0	3	0	0	7	8	24
27	7	2	3	0	4	5	6	27
28	15	1	7	0	3	4	6	36
29	11	0	7	0	3	18	7	46
30	10	0	17	0	6	15	3	51
31	11	0	13	0	4	26	6	60
32	11	1	12	1	5	14	2	46
33	8	1	11	0	7	15	3	45
34	8	0	15	0	4	8	2	37
35	11	0	13	0	1	6	1	32
36	9	0	9	0	2	3	2	25
37	8	1	2	0	3	5	3	22
38	6	0	4	0	0	7	2	19
39	5	0	3	0	2	5	2	17
40	2	0	2	1	3	1	5	14
41	0	0	0	0	1	6	3	10
42	0	0	1	0	1	2	1	5
43	0	0	1	0	2	3	2	8
44	0	0	0	0	1	0	5	6
45	0	0	0	0	0	1	2	3
47	0	0	0	0	0	0	2	2

-Continued-

Appendix P.3. (page 2 of 2)

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
48	0	0	0	0	1	0	1	2
49	0	1	0	0	0	0	1	2
	188	11	152	2	57	172	335	917

List of Area Groups:

- | | |
|------------------------------|-----------------|
| 31 AKUTAN/AKUN BAYS | 35 USOF BAY |
| 32 BEAVER INLET | 38 CAPE IDAK |
| 33 UNALASKA/KALEKTA BAYS | 39 INANUDAK BAY |
| 34 MAKUSHIN/PUMICESTONE BAYS | |

Appendix P.4. Yellowfin sole lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP				TOTAL
	31	33	34	35	
19	0	1	0	0	1
27	1	0	1	0	2
28	0	0	1	0	1
31	0	1	2	0	3
32	2	0	3	1	6
33	0	0	1	0	1
34	1	0	1	0	2
36	1	0	1	0	2
37	0	0	1	0	1
38	0	0	0	1	1
39	0	0	1	0	1
43	0	1	0	0	1
44	0	1	0	0	1
	5	4	12	2	23

List of Area Groups:

- 31 AKUTAN/AKUN BAYS
- 34 MAKUSHIN/PUMICESTONE BAYS
- 33 UNALASKA/KALEKTA BAYS
- 35 USOF BAY

Appendix P.5. Arrowtooth flounder lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
10	2	0	0	0	0	0	3	5
11	2	2	0	0	2	0	13	19
12	15	1	4	0	3	0	55	78
13	12	1	6	2	13	1	61	96
14	1	0	4	1	3	0	58	67
15	1	1	0	0	0	0	17	19
16	2	0	0	0	0	0	1	3
17	12	0	0	0	0	0	1	13
18	6	1	1	1	5	0	4	18
19	9	1	4	2	8	3	13	40
20	4	1	12	1	18	13	18	67
21	5	4	8	5	15	18	24	79
22	8	1	4	9	10	5	17	54
23	10	0	8	3	7	1	8	37
24	8	3	10	4	13	1	6	45
25	13	0	14	6	20	5	1	59
26	16	2	14	9	17	17	2	77
27	12	5	17	15	26	25	11	111
28	13	3	10	16	21	31	6	100
29	10	7	10	24	14	20	9	94
30	10	4	4	23	16	7	1	65
31	6	4	5	24	9	5	3	56
32	3	8	8	15	13	3	2	52
33	2	7	4	23	18	2	6	62
34	0	3	4	13	5	1	3	29
35	2	7	1	15	10	6	0	41
36	0	4	3	19	9	5	2	42
37	1	6	4	19	13	6	2	51
38	1	6	2	18	10	4	0	41
39	1	4	2	16	4	4	1	32
40	1	3	4	10	7	6	1	32
41	1	3	6	15	6	2	0	33
42	0	0	2	14	5	5	0	26
43	1	3	5	18	11	2	1	41
44	0	1	2	10	4	0	1	18
45	0	3	0	7	2	2	0	14
46	0	2	4	3	2	0	0	11
47	1	1	2	3	4	0	0	11
48	0	1	3	0	4	0	0	8
49	2	0	1	3	2	1	0	9
50	0	0	3	1	3	0	0	7

-Continued-

Appendix P.5. (page 2 of 2)

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
51	1	0	0	1	2	0	0	4
52	0	2	1	2	4	0	0	9
53	0	1	0	0	4	0	0	5
54	0	0	1	0	1	0	0	2
55	0	0	1	1	1	0	0	3
56	0	0	0	1	1	0	0	2
57	0	1	0	0	2	0	0	3
58	0	0	0	1	2	0	0	3
59	0	0	0	0	3	0	0	3
60	0	1	0	1	2	0	0	4
61	0	0	0	0	2	0	0	2
62	0	0	0	1	1	0	0	2
63	0	0	0	0	2	0	0	2
65	0	0	0	1	0	0	0	1
66	0	0	1	0	0	0	0	1
	194	108	199	376	379	201	351	1808

List of Area Groups:

31 AKUTAN/AKUN BAYS
 32 BEAVER INLET
 33 UNALASKA/KALEKTA BAYS
 34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY
 38 CAPE IDAK
 39 INANUDAK BAY

Appendix P.6. Pollock lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP						TOTAL
	31	32	33	34	35	38	
11	0	0	0	1	0	0	1
12	0	0	0	1	0	0	1
13	0	0	0	8	0	0	8
14	0	0	0	15	0	0	15
15	0	0	0	21	0	0	21
16	0	2	0	32	0	0	34
17	0	2	0	15	0	0	17
18	0	4	0	11	0	0	15
19	0	1	1	6	0	1	9
20	3	5	0	0	0	0	8
21	2	1	1	0	0	0	4
22	0	1	0	0	0	0	1
23	1	0	0	0	0	0	1
28	1	0	0	0	0	0	1
29	0	0	0	0	1	0	1
31	1	0	0	0	1	0	2
32	1	0	2	0	2	0	5
33	12	0	3	0	0	0	15
34	11	0	3	2	0	0	16
35	26	0	2	1	0	0	29
36	32	2	1	4	0	0	39
37	31	3	1	6	2	0	43
38	25	2	0	2	2	0	31
39	13	7	1	1	10	0	32
40	4	17	2	5	10	0	38
41	3	11	5	8	5	0	32
42	9	6	6	13	4	0	38
43	13	10	12	39	8	0	82
44	9	8	17	55	5	0	94
45	16	17	21	70	8	0	132
46	22	18	15	49	14	0	118
47	21	11	11	55	8	0	106
48	25	19	21	30	2	0	97
49	14	15	11	13	4	0	57
50	21	21	22	20	1	0	85
51	26	17	25	15	5	0	88
52	31	15	20	7	3	0	76
53	25	18	18	6	2	0	69
54	25	18	16	8	1	0	68
55	13	20	19	13	4	0	69
56	7	16	5	7	7	0	42

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Appendix P.6. (page 2 of 2)

LENGTH (CM)	AREA GROUP						TOTAL
	31	32	33	34	35	38	
57	6	20	8	12	4	0	50
58	4	19	3	5	3	0	34
59	3	11	6	6	3	0	29
60	0	7	6	9	1	0	23
61	0	3	3	9	1	0	16
62	0	0	4	5	1	0	10
63	0	1	0	7	1	0	9
64	0	1	0	1	0	0	2
65	0	1	0	4	0	0	5
66	0	2	0	0	1	0	3
67	0	0	1	4	0	0	5
68	0	0	0	1	0	0	1
71	0	0	0	1	0	0	1
77	0	0	0	1	0	0	1
	456	352	292	604	124	1	1829

List of Area Groups:

31 AKUTAN/AKUN BAYS
 32 BEAVER INLET
 33 UNALASKA/KALEKTA BAYS
 34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY
 38 CAPE IDAK

Appendix P.7. Pacific cod lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
18	3	0	0	0	0	0	0	3
19	2	0	0	0	0	0	0	2
20	5	0	0	0	0	0	0	5
21	3	0	0	0	0	0	0	3
22	6	0	0	0	0	0	0	6
23	11	0	0	0	0	0	0	11
24	10	0	0	0	0	0	0	10
25	2	0	0	0	0	0	0	2
26	2	0	0	0	0	0	0	2
28	2	0	0	0	0	0	0	2
33	1	0	0	0	0	0	0	1
34	1	0	0	0	0	0	0	1
35	6	0	0	0	0	0	0	6
36	3	0	1	0	0	0	0	4
37	7	0	0	0	0	0	0	7
38	10	0	0	0	0	0	0	10
39	11	1	0	2	0	0	0	14
40	7	0	0	1	0	0	0	8
41	3	0	3	0	0	0	0	6
42	7	0	3	0	0	0	0	10
43	5	0	0	0	0	0	0	5
44	2	0	2	0	0	0	0	4
45	4	0	3	0	0	1	0	8
46	3	0	1	0	1	0	0	5
47	2	0	2	1	0	2	0	7
48	3	0	1	2	2	2	0	10
49	2	0	7	0	3	2	0	14
50	0	3	5	1	1	3	0	13
51	1	1	5	1	4	4	0	16
52	0	1	4	3	5	5	0	18
53	1	2	8	1	3	5	0	20
54	2	3	8	0	5	6	0	24
55	5	8	5	1	1	10	0	30
56	0	2	6	0	5	6	0	19
57	1	2	4	1	4	2	0	14
58	1	9	3	1	2	2	0	18
59	0	2	2	0	4	2	0	10
60	1	1	5	0	5	1	0	13
61	4	2	1	1	3	0	0	11
62	0	3	3	1	2	0	0	9
63	2	3	2	1	4	2	0	14

-Continued-

Appendix P.7. (page 2 of 2)

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
64	1	4	1	0	4	1	0	11
65	1	2	1	0	5	1	0	10
66	0	4	0	1	2	0	0	7
67	0	4	2	2	5	2	1	16
68	0	1	0	1	2	0	0	4
69	3	3	1	1	0	0	1	9
70	0	2	2	0	5	1	0	10
71	0	2	1	1	3	0	0	7
72	0	3	1	1	2	0	0	7
73	0	1	0	0	2	0	0	3
74	0	4	1	1	0	0	0	6
75	0	0	2	0	1	0	0	3
76	0	2	0	1	0	1	0	4
77	1	2	2	1	1	0	0	7
78	0	1	3	2	1	0	0	7
79	0	0	1	1	1	0	0	3
80	0	2	2	2	0	0	0	6
81	0	1	0	0	1	0	0	2
82	0	1	2	1	0	0	0	4
83	0	0	0	0	1	0	0	1
84	0	0	1	0	0	0	0	1
85	0	1	1	0	1	0	0	3
89	0	0	0	0	1	0	0	1
90	0	0	0	0	1	0	0	1
92	0	0	0	1	0	0	0	1
93	0	1	0	0	0	0	0	1
112	0	0	1	0	0	0	0	1
	147	84	109	35	93	61	2	531

List of Area Groups:

31 AKUTAN/AKUN BAYS
 32 BEAVER INLET
 33 UNALASKA/KALEKTA BAYS
 34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY
 38 CAPE IDAK
 39 INANUDAK BAY

Appendix P.8. Sablefish lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP			TOTAL
	32	33	34	
32	0	0	1	1
37	0	0	1	1
38	0	0	3	3
39	0	0	2	2
40	0	0	1	1
41	1	0	1	2
42	1	0	4	5
43	1	1	5	7
44	0	4	3	7
45	0	2	2	4
46	1	6	3	10
47	0	5	1	6
48	1	3	2	6
49	1	1	1	3
50	1	0	1	2
	7	22	31	60

List of Area Groups:

- 32 BEAVER INLET
- 33 UNALASKA/KALEKTA BAYS
- 34 MAKUSHIN/PUMICESTONE BAYS

Appendix P.9. Rougheye rockfish lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	<u>AREA GROUP</u>		TOTAL
	34	35	
17	0	2	2
26	0	1	1
28	0	1	1
29	1	0	1
30	0	1	1
31	0	1	1
36	2	0	2
41	2	0	2
	5	6	11

List of Area Groups:

34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY

Appendix P.10. Rex sole lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP							TOTAL
	31	32	33	34	35	38	39	
9	0	1	0	0	0	0	0	1
10	0	0	0	0	0	0	1	1
11	1	0	0	0	0	0	0	1
18	0	0	0	1	0	0	0	1
19	0	0	0	0	0	0	1	1
20	0	0	0	1	0	0	0	1
23	0	0	0	0	0	0	1	1
24	0	0	0	3	0	0	0	3
25	0	0	1	6	0	1	1	9
26	0	0	0	9	0	0	1	10
27	1	1	1	11	2	0	1	17
28	8	3	3	6	6	0	0	26
29	5	0	2	1	6	0	1	15
30	7	2	7	2	8	0	0	26
31	1	1	3	0	6	0	0	11
32	0	0	1	1	2	0	0	4
34	1	0	1	0	0	0	0	2
35	3	0	0	0	0	0	0	3
36	2	0	0	0	0	0	0	2
37	1	1	4	2	0	0	0	8
39	0	0	2	4	0	0	0	6
40	0	0	0	2	0	0	0	2
41	2	0	0	0	0	1	0	3
42	0	2	1	1	0	1	0	5
43	1	0	1	0	0	1	1	4
44	0	0	1	0	0	0	0	1
45	0	0	0	0	0	1	0	1
46	0	0	1	0	0	1	0	2
47	1	0	2	1	0	0	0	4
48	0	0	2	0	0	0	0	2
49	0	0	1	0	0	0	0	1
50	0	0	1	0	0	0	0	1
52	0	0	0	0	0	1	0	1
	34	11	35	51	30	7	8	176

List of Area Groups:

31 AKUTAN/AKUN BAYS
 32 BEAVER INLET
 33 UNALASKA/KALEKTA BAYS
 34 MAKUSHIN/PUMICESTONE BAYS

35 USOF BAY
 38 CAPE IDAK
 39 INANUDAK BAY

Appendix P.11. Dover sole lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP				TOTAL
	31	32	34	35	
24	1	0	0	0	1
29	1	0	0	1	2
30	0	0	1	0	1
31	1	0	0	0	1
34	0	1	1	0	2
35	0	0	0	1	1
36	0	0	1	1	2
38	0	1	1	1	3
39	0	2	1	0	3
40	0	2	4	0	6
41	0	0	2	0	2
42	0	0	1	0	1
43	0	3	0	0	3
44	0	0	1	0	1
	3	9	13	4	29

List of Area Groups:

- 31 AKUTAN/AKUN BAYS
- 34 MAKUSHIN/PUMICESTONE BAYS
- 32 BEAVER INLET
- 35 USOF BAY

Appendix P.12. Butter sole lengths (cm) by area from a trawl survey
of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP		TOTAL
	35	39	
13	0	1	1
21	0	1	1
28	0	1	1
30	0	1	1
31	2	0	2
32	0	1	1
33	1	0	1
34	1	1	2
38	1	0	1
	5	6	11

List of Area Groups:

35 USOF BAY
39 INANUDAK BAY

Appendix P.13. Pacific ocean perch lengths (cm) by area from a trawl survey of Eastern Aleutians, July, 1990.

LENGTH (CM)	AREA GROUP			TOTAL
	32	33	38	
13	1	0	1	2
14	2	0	0	2
15	1	0	0	1
16	1	0	0	1
24	1	0	0	1
27	2	0	0	2
28	1	0	0	1
29	8	0	1	9
30	10	0	0	10
31	16	0	0	16
32	24	0	0	24
33	21	0	0	21
34	10	2	0	12
35	8	1	0	9
36	3	1	0	4
40	0	1	0	1
	109	5	2	116

List of Area Groups:

- 32 BEAVER INLET
- 33 UNALASKA/KALEKTA BAYS
- 38 CAPE IDAK

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